BATHURST RESOURCES LIMITED

Weed Management Plan

Buller Plateaux and Blackburn Pākihi

August 2026

BPCP-ENV-PLN-008

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Glossary

Specific terms	
AEcE	Assessment of Ecological Effects Report
AvMP	Avifauna Management Plan BPCP-ENV-PLN-003
BMP	Biosecurity Management Plan BPCP-ENV-PLN-007
Blackburn Pākihi Residual Effects Management Area	c. 1,505ha at the Blackburn Pākihi subject to intensive weed and pest control to compensate for residual effects of the BPCP that cannot be avoided, remedied and/or mitigated/minimised.
BPCP	Buller Plateaux Continuation Project ('The Project')
BDC	Buller District Council
BRL	Bathurst Resources Limited
BOMP	Biodiversity Outcome Monitoring Plan
CMP	Construction Management Plan
Cypress	Cypress Mining Area
DBEA	Denniston Biodiversity Enhancement Area
DBH	Diameter at Breast Height
DOC	Department of Conservation
DPWCP	Denniston Plateau Weed Control Plan (Williams and Huggins 2020)
DPPA	Denniston Permanent Protection Area
EIANZ	The Environment Institute of Australia and New Zealand
Eradiation and Surveillance Weeds	Exotic weeds that are easier to control and are often present to a lesser extent than progressive reduction weeds and could feasibly be eradicated.
ESCP	Erosion and Sediment Control Plan BPCP-ENV-PLN-013
ESE	Escarpment Extended project area
FTAA	Fast-track Approvals Act (2024)
LMP	Lizard Management Plan BPCP-ENV-PLN-005
Low Risk weeds	Weed species that do not pose a risk to native vegetation communities due to their limited dispersal capability and/or poor competitiveness.
MFS	Mount Frederick South project area
NZTCS	New Zealand Threat Classification System
Priority Areas	Priority areas for weed control as set out in Section 2.5
Priority Weeds	Exotic species that are known to be present on the Buller Plateaux and that pose a threat to native ecosystems if left uncontrolled
Progressive Reduction Weeds	Well-established, widespread exotic species that are the most difficult to control, have long-lived seed banks, and are unlikely to be eradicated from the Weed Management Area in the foreseeable future. This includes gorse, exotic *Juncus* and Scottish broom.
REMP	Residual Effects Management Plan
RMA	Resource Management Act (1991)
RPPMP	Regional Pest Plant Management Plan prepared by West Coast Regional Council

RMP	Rehabilitation Management Plan BPCP-ENV-PLN-002
RY	Reporting Year which is April to March based on the annual work plan
Stockton	Stockton Mine, including the Ngakawau Coal Handling Facility and Aerial Ropeway
UWHR	Transport Corridor known as the Upper Waimangaroa Haul Road
VDT	Vegetation Direct Transfer
Vulnerable Habitats	Vegetation or land cover types that are most vulnerable to weed invasion, including, but not limited to, areas where vegetation has been cleared (e.g., roads, tracks, mining areas) and low-growing vegetation.
Weeds	A non-native plant, garden cultivar or native plant not naturally found in the Ngakawau Ecological District which, if established, has the potential to significantly and adversely affect the long-term survival of native species, the integrity or sustainability of natural communities of indigenous species.
WCRC	West Coast Regional Council
WMA	Weed Management Area, the area to which this Weed Management Plan applies
WMP	Weed Management Plan, this document BPCP-ENV-PLN-008
General terms	
Biodiversity	The variety of life on Earth at all its levels, from genes to ecosystems, and can encompass the evolutionary, ecological, and cultural processes that sustain life
Ecology	The study of the relationships between living organisms, including humans, and their physical environment.
Site description	
Disturbance Area	The mine footprint areas and including the access road which are directly affected (disturbed) by physical works. Disturbance areas do not include adjoining and/or surrounding areas affected by edge effects.
Project Area	The Buller Plateaux Continuation Project Area which includes five Project sub-areas (Stockton (STO), Extended Escarpment (ESE), Mt Frederick South (MFS), Upper Waimangaroa Haul Road (UWHR) and Cypress Mining Area (Cypress).

1.0 Introduction

1.1 Background

This Buller Plateaux and Blackburn Pākihi Weed Management Plan ("the WMP") defines the Weed Management Area ("the WMA") and describes the actions to be undertaken in order to manage weeds and their effects associated with the Buller Plateaux Continuation Project ("the BPCP"). This WMP also sets out the objectives, risks, responsibilities, reporting and training requirements associated with implementing this WMP in accordance with the relevant resource consent conditions (see Attachment 1).

The WMA includes the Project Area and immediate surrounds, along with nearby historic mine sites and the Blackburn Pākihi area associated with the BPCP. The goals of this WMP are:

1) To manage and progressively reduce the impacts of exotic weeds within the WMA; and
2) Prevent effects due to weeds spreading beyond the BPCP.

When effectively implemented, the actions described here will reduce adverse effects of weeds associated with the BPCP and also address ongoing effects due to weeds at previously mined sites nearby where weeds were not adequately controlled in the past.

This plan should be read in conjunction with other relevant management BPCP plans including the:

- Biosecurity Management Plan (BPCP-ENV-PLN-007);
- Annual Work Plan; and
- Rehabilitation Management Plan (BPCP-ENV-PLN-002).
- Hazardous Substances Management Plan (BPCP-ENV-PLN-014)
- Erosion and Sediment Control Plan (BPBP-ENV-PLN-013)

1.2 Location

The Weed Management Area (WMA) covered by this plan encompasses approximately 9,431 hectares (ha) as shown in Figure 1, including:

- Denniston Plateau (1,700ha), including the Denniston Permanent Protection Area ('DPPA') and Denniston Biodiversity Enhancement Area ('DBEA') required by existing consents for Escarpment Mine;
- Stockton Plateau (3,120ha), including the mine site and surrounds;
- The majority of the five Project sub-areas of the BPCP (Mount Frederick South (MFS), Escarpment Extended (ESE), Upper Waimangaroa Haul Road (UWHR), Stockton and Cypress) and associated roads and infrastructure;

- A 30m setback from the BPCP Consent Areas and current mining areas (i.e., Stockton and Cypress mines) to account for edge effects[1];
- The summit and upper slopes of Mt William;
- Blackburn Pākihi – 1,509ha weed management area;
- Locations between the separate components of the Buller Plateaux, including Waimangaroa Valley and parts of the Deep Creek catchment;
- The former Whareatea Mine and associated roading/infrastructure areas;
- Mt Rochfort Road, summit and surrounds;
- Land Parcels NL9D/64 and NL11D/100 at Mt William North; and
- Sites at North Stockton and Millerton either side of the 2 – 5 Haul Road (excluding private properties at Millerton).

The WMA (Figure 1) will comprise a contiguous area for weed control surrounding and beyond the Project Area excluding the Whareatea Gorge and areas south of Mt Frederick due to access constraints. The summit of Mt William is included in the WMA because there is an existing public walking track (Myra's Track) from Coalbrookdale to the summit, the low vegetation present is considered vulnerable habitat (see Section 2.4), exotic Juncus (*Juncus bulbosus* and *J. lomatophyllus*) are both present and a number of other weeds are present at the start of the track (nearest Coalbrookdale).

In terms of land tenure, the WMA includes a combination of crown land administered by Land Information New Zealand (LINZ), public conservation land administered by the Department of Conservation, and private land, some of which is owned by Bathurst Resources Limited (BRL). Landowner agreements will be required to implement elements of this plan.

[1] This is different to the 'indirect effects contingency' as defined in the Ecological Impact Assessment (Ecological Solutions Limited 2026) and is based on the West Coast Regional Pest Plant Management Plan (RPPMP) to ensure that BRL are adequately responding to the potential for pest plant species to spread onto adjacent/neighbouring land (the 'Good Neighbour Rule').

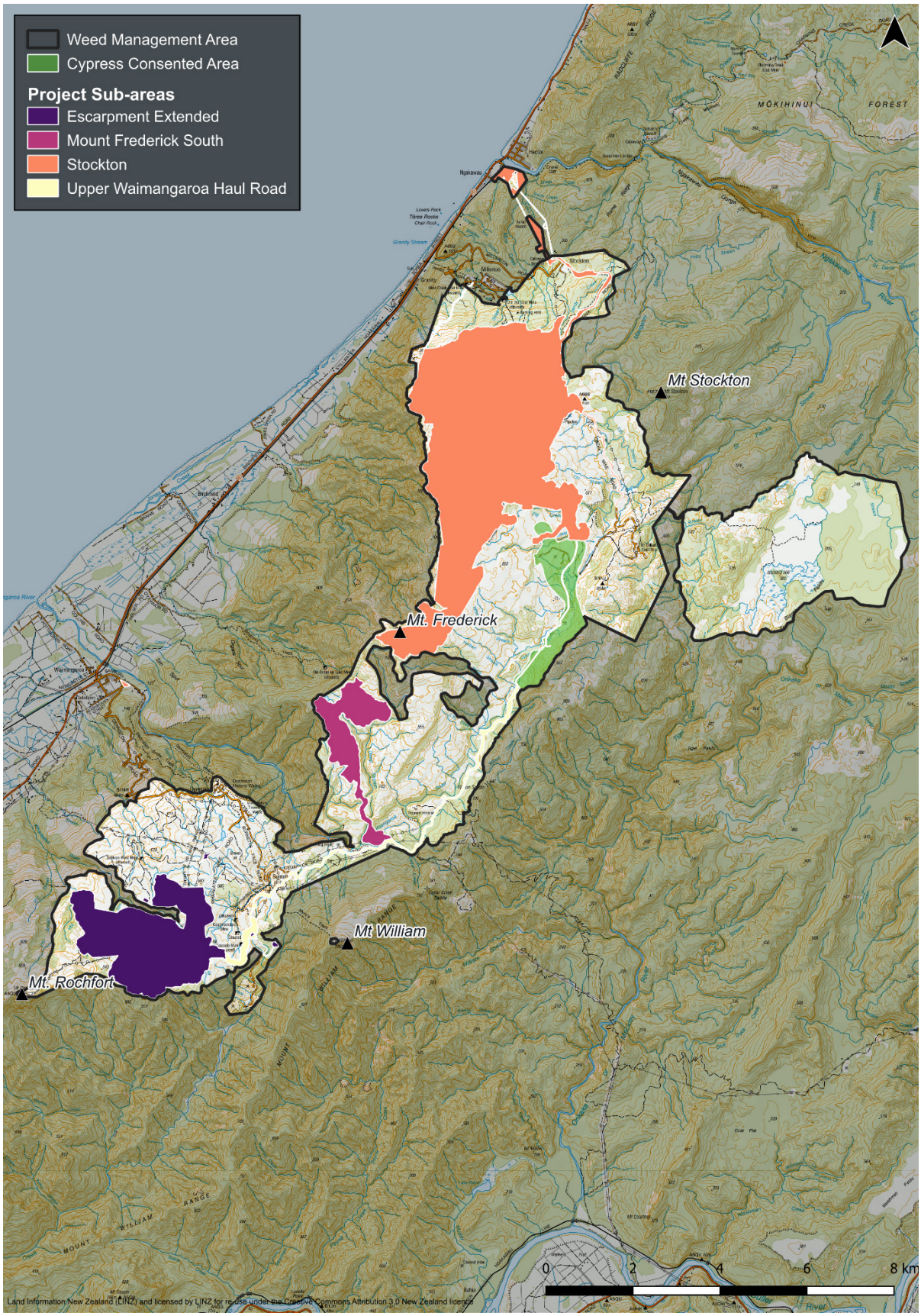

Figure 1: Buller Plateaux Weed Management Area.

1.3 Purpose

The purpose of this WMP is to identify and describe the actions required and the personnel responsible to:

- Identify weeds and describe the approach for categorising species into 'priority', 'low risk' or 'eradication' weeds for control;
- Control weeds and minimise the spread of priority weeds both within and beyond the WMA;
- Reduce, and where possible prevent, weeds adversely affecting undisturbed vegetation within the WMA;
- Prevent weeds adversely affecting vegetation establishment and succession at rehabilitated areas within the BPCP;
- Ensure compliance with the relevant resource consent conditions (provided as Attachment 1);
- Ensure compliance with the West Coast Regional Pest Plant Management Plan (RPPMP); and
- Ensure that BRL are meeting the requirement as occupiers/owners of land to recognise and adequately respond to the potential for pest plant species to spread onto adjacent/neighbouring land (the 'Good Neighbour Rule');

Where prevention of adverse effects is not achievable, the purpose is to localise and minimise the adverse effects of weeds in natural and rehabilitated areas via effective weed management**.**

The most effective weed control isolates and controls the maximum area of infestation at the earliest opportunity and in the shortest possible time. This approach results in the most significant reduction in potential sources of weed seeds, which is paramount for long-term, cost-effective control, regulatory compliance and avoiding significant adverse effects to adjoining landowners/occupiers from weed spread.

Where appropriate, collaboration with respect to potential incursions or control is to be undertaken between land managers, including for example the Department of Conservation, Transpower, LINZ and residents as necessary. This collaboration could include joint funding and/or co-ordinated management as appropriate. This approach recognises that ongoing weed management will be necessary throughout the WMA and aims to ensure that indigenous vegetation typical of the area is maintained in undisturbed areas, establishes in rehabilitated areas, and is self-sustaining in perpetuity.

This purpose will be achieved by:

- Maintaining and protecting currently weed free (intact) habitats. This will involve appropriate biosecurity measures, implementation of weed barriers/buffers where appropriate, reliable surveillance, careful mine planning and effective identification, classification and management of potential source populations in order to reduce the risk of new weeds establishing and existing weeds spreading as set out in Section 3 of this plan and Section 3 of the Biosecurity Management Plan (BPCP-ENV-PLN-007).

- Progressive reduction of established "Priority Weeds" where they occur, with a particular focus on vulnerable areas as described in Sections 2.4 and 2.5, in order to reduce their impacts. This includes reducing the spatial extent and biomass of gorse (*Ulex europaeus*), *Juncus canadensis* and *J. squarrosus*, which are already widely established and are compromising indigenous communities as described in Section 3.3.1. Progressive reduction will focus on protecting vulnerable habitats as set out in Section 3.4.
- Achieving and maintaining zero density of weed species for which eradication is the target. Eradication weeds are those which are present, but not well established, within the WMA as set out in Section 3.4.2, as well as weeds that are not yet present, but may arrive at the site, could establish if not controlled, and are classified as 'priority' or 'eradication' as set out in Section 3.4.
- Minimising the potential for establishment of weeds at rehabilitated sites as discussed in the Rehabilitation Management Plan (BPCP-ENV-PLN-002) and set out in more detail in Section 3.4.4. Weeds compete with native plants for resources like water, nutrients, and sunlight, hindering their establishment and growth. Both gorse and *J. squarrosus* are adversely affecting rehabilitated sites at some locations.
- Ongoing monitoring of the spatial extent of existing weeds and surveillance for new invasions to inform management decisions as described in Section 4.

Together, these weed management actions will contribute to maintenance and restoration of ecological integrity and function across the WMA.

1.4 Objectives

The objectives of the WMP are to:

a) identify and prioritise weeds for control, including new weeds that are discovered as the Project proceeds;

b) identify weeds for which eradication is achievable (eradication and surveillance weeds, referred to as ES Weeds);

c) identify weeds for which eradication is not achievable, but where progressive reduction is realistic (progressive reduction weeds, referred to as PR Weeds);

d) maintain the WMA free of ES Weeds;

e) reduce the known extent and estimated biomass of PR Weeds in the priority areas;

f) prevent, where practicable, and elsewhere reduce, the spread of weeds into vulnerable habitats;

g) minimise establishment of weeds on exploration drill sites and ensure that any drill sites do not support any new weeds within five years of drill site closure;

h) minimise the spread of weeds at the periphery of the Project area and at other locations where weeds would be easily spread into otherwise undisturbed ecosystems (e.g. along monitoring and public walkways, drains and light vehicle tracks);

i) ensure, where practicable, that bare surfaces created during vegetation stripping, earthworks and mining operations do not become infested with weeds;

j) ensure that the purpose and outcomes of site rehabilitation outcomes are not compromised by weeds;

k) ensure there are no significant adverse effects to adjoining landowners / occupiers from the spread of weeds;

l) set out methods of weed control for priority species; and

m) address historic weed impacts as part of the Residual Effects package; and

n) detail the methods and frequency of weed surveillance and reporting.

Performance targets for the WMA include:

- 10% reduction in the extent of PR weeds over five years determined by 5-yearly WMA surveys
- Maintaining priority weed species at less than 5% cover within rehabilitation areas measured via plot-based surveys

1.5 Stakeholder Consultation

A draft of this management plan was supplied to relevant regulators and Te Rūnanga o Ngāti Waewae as part of the FTA pre-consultation engagement. The stakeholder consultation regarding associated technical reports and this management plan has been summarised in the Stakeholder Consultation section of the BPCP FTAA main application.

Once this management plan is approved, this section will document all future stakeholder engagement undertaken for subsequent versions.

1.6 Relevant Resource Consent Conditions

Proposed Consent conditions that are relevant to this WMP are listed below in Table 1. The relevant resource consent conditions are provided in Attachment 1.

Conditions to be inserted upon issue of final decision.

Table 1: Proposed resource consent conditions relevant to this Management Plan

Consent	Description	Reference in Plan

1.7 Scope and Approach

1.7.1 Matters Covered

This plan sets out specific management strategies for weeds to comply with resource consent conditions and will be informed by ongoing monitoring and surveillance as management proceeds in order to refine the goals, objectives and actions as appropriate.

The WMA covers c. 9,431ha as shown in Figure 1. Weed management within the BPCP and surrounds (3,086ha) forms part of mitigation and remediation associated with the BPCP and includes the Denniston Biodiversity Enhancement Area associated with existing Escarpment Mine resource consents. Weed management across the remainder of the WMA (6,345ha) forms part of the package addressing residual effects of the BPCP. These areas have been affected by historic mining disturbance and other mining activities to some degree which pre-date, and are not associated with, the BPCP.

This WMP:

- Lists the weeds recorded within the WMA and sets out our current understanding of their distribution.
- Identifies:
    - The status of weeds present with respect to the West Coast Regional Council Regional Pest Management Plan 2018 – 2028 (WRC 2018); and
    - Vulnerable habitats and priority areas for weed control.
- Prioritises weeds and action strategies for weed control.
- Sets control targets.
- Provides for monitoring and surveillance methods.
- Defines key responsibilities and reporting requirements.

1.7.2 Addressing residual effects

Weed management of BPCP sub-areas within the WMA (3,086ha) will contribute to mitigating and remedying the adverse ecological effects of the BPCP. Management of historically mined and non-remediated sites (6,345ha) will address historical effects which have not been addressed to date and is proposed as part of the package to address residual effects of the BPCP. Historical effects also include the presence of species not native to the Buller Plateaux in old plantings that will contrast visually and ecologically with both undisturbed areas and new plantings that use a more ecologically appropriate species mix.

Weed management within and around the pest free exclusion areas and the Blackburn Pākihi intensive ground-based predator control area also form part of the package to address residual effects. The location of the residual effects management elements within the WMA are shown in Figure 2.

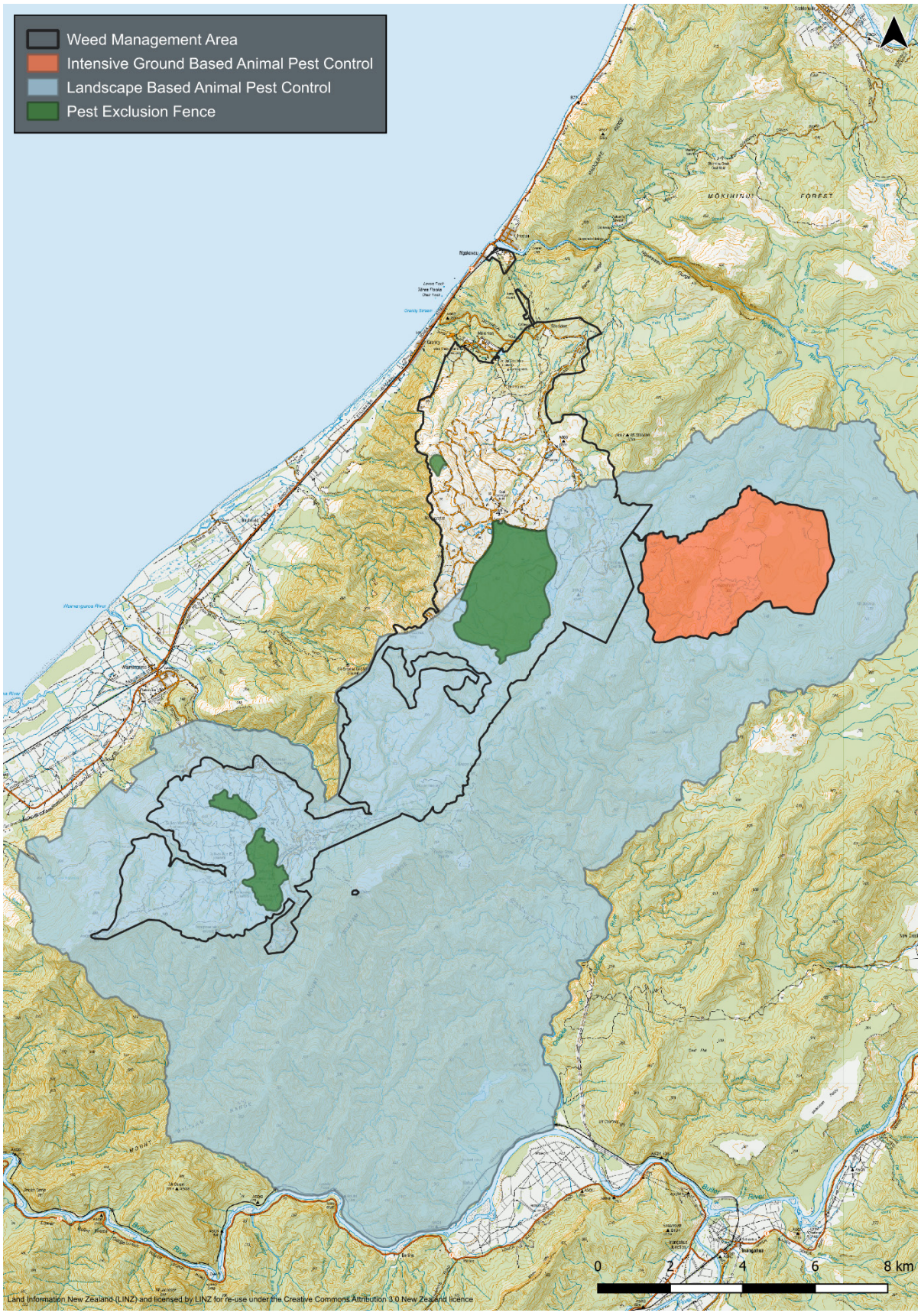

Figure 2: Residual effects management sites within the WMA.

1.7.3 Definitions and Approach

For the purposes of this plan, pest plants or **weeds**, are defined as 'A non-native plant, garden cultivar plant or plant not naturally occurring within the Buller Plateaux that has the potential to significantly and adversely affect the long-term survival of native species which occur naturally on the Buller Plateaux and/or the integrity or sustainability of communities of indigenous species growing there' (adapted from Owen 1998). This definition deliberately includes natural communities and rehabilitated communities.

Weeds can degrade indigenous plant communities in a number of ways including, but not limited to, by displacing indigenous vegetation, altering plant succession, creating habitat less suitable for native species, supporting pest animal species and altering the natural character. Some weeds already present within the WMA have the capacity, if unmanaged, to continue to increase in extent and dominance, further altering and degrading the habitats and ecological values.

- **Priority weeds** are exotic species that are known to be present within the WMA and that pose a threat to native ecosystems if left uncontrolled. Priority weeds are separated into two categories:
    - **Progressive Reduction weeds** are well-established exotic species that are unlikely to be eradicated from the WMA in the foreseeable future. This includes gorse, Scotch broom and some exotic *Juncus* species.
    - **Eradication and Surveillance weeds** are those that are easier to control and are often less abundant or more localised than Progressive Reduction weeds and therefore could realistically be eradicated. This category includes non-native plant species that have not been recorded within the Project sub-areas, but could establish in future. Eradication (i.e., zero densities within the WMA) must be verified by ongoing surveillance over the life of the consents.
- **Low Risk weeds** are exotic species that are known to be present within the WMA, but are not considered to pose a threat to native ecosystems if left uncontrolled. These are typically herbs and grasses which are present to only a minor degree and are unlikely to outcompete native species at most locations. Low risk weeds would be subject to containment as set out in Section 1.8.1, but could be controlled in Vulnerable Habitats (defined below) if monitoring indicated that such control was warranted.
- **Vulnerable Habitats** are defined as vegetation or land cover types that are considered most vulnerable to weed invasion or adverse effects due to weeds. This includes vegetation types which already have a high component of exotic vegetation, cleared areas (e.g., roads, tracks, mining areas) and low-growing tussock and pākihi vegetation (including that surrounding tarns).

The extent and location of vulnerable habitats, and the location of weed infestations, will need to be confirmed prior to management commencing.

The approach to weed management within the WMA is set out in Section 3.

1.8 Standards and Guidelines

This plan strategically aligns with and expands upon the Denniston Plateau Weed Control Plan 2020-2025 (Williams and Huggins 2020) which follows the principles and objectives set out in the Department of Conservation Strategic Plan for Managing Invasive Weeds (Owen 1998). This WMP considers information from a number of sources including:

- Buller Plateaux Vegetation Mapping (Ecological Solutions Limited 2026a).
- Department of Conservation Denniston Plateau Weed Management Plan 2020-2025 (Williams and Huggins 2020).
- West Coast Regional Pest Plant Management Plan 2018-2028 (RPPMP) (WCRC 2018).
- Heaphy and Denniston Biodiversity Projects Annual Report 1 July 2019 – 30 June 2020 (Department of Conservation 2020).
- *Juncus squarrosus* Herbicide Trial (Simcock et al. 2024).
- Assessment of Rehabilitation Outcomes at Stockton Mine (Ecological Solutions Limited 2026b).
- iNaturalist New Zealand Database (accessed 07/03/2025).
- STO-ENV-PLN-014 Stockton Mine Weed Control Environmental Management Sub Plan.
- STO-ENV-PLN 005 Environment Protection and Response (Hazardous Substances) Sub Plan.
- STO-ENV-PLN-019 Land Disturbance and Erosion Control Plan.
- STO-ENV-PRO-006 Boot, Equipment and Vehicle Washing Procedure.
- STO-ENV-SOP-031 Rehabilitation Stages and Planning Procedure.
- Millerton and Plateau Protection Society Agreement (MaPPS) – (agreed Terms of Reference for management of Millerton Heritage and Ecological Reserve - Protected Area) Clause 3.1.13 - protection of natural environment.
- Cypress Mining Area Weed Management Plan.

1.9 Management Approach

1.9.1 Weed Management Principles

Weed management strategies are informed by the following principles;

- Prevention is the first line of defence.
- Eradication during early stages of invasion is the most effective and efficient strategy.
- Monitoring and surveillance are necessary to detect weeds (especially recent invaders when still at low densities) and to inform weed control and management

- The well-established weeds such as gorse and heath rush cannot be eradicated from all areas in the short term, however ongoing control and containment can prevent further spread and reduce their presence and impact over time.

In order to achieve the objectives of this WMP, four distinct management strategies will be applied;

- **Prevention** of new weed species and populations establishing. This is achieved by reducing vectors of dispersal, particularly into vulnerable habitats. This matter is dealt with in more detail in the Biosecurity Management Plan (BPCP-ENV-PLN-007).
- **Prioritisation of weed control effort**, determined by an assessment of the weediness of particular species, the achievability of control and the specific context of the WMA. Based on a prioritisation assessment weeds have been placed into one of the following groups for management:
    - **Priority Weed - Progressive Reduction** well-established weeds, which cannot be eradicated in the short to medium term.
    - **Priority Weed - Eradication and Surveillance** priority weeds which are present, but where eradication is still possible, and newly established weeds/locations informed by surveillance.
    - **Containment** low risk species which are not actively controlled except to prevent further spread to limit effects.
- **Prioritisation of management location:** Identification of habitats where weeds would have a disproportionately large impact, e.g., vulnerable to invasion or with high value indigenous species present or located at the top of catchments.
- **Monitoring and surveillance** of existing weed populations, new satellite infestations and newly arriving species.

Each of these aspects is considered in more detail in Section 3.

1.10 Existing Weed Management

Weed management over the Buller Plateaux is currently funded by BRL and the Crown, undertaken in part by the Department of Conservation as part of the Denniston Plateau Biodiversity Management Plan 2013-2063 (Gruner 2013), and in part by contractors employed at Stockton Mine and surrounds on behalf of BRL.

The Denniston Biodiversity Management Plan applies to the Denniston Biodiversity Enhancement Area (DBEA) and includes most of the Denniston Plateau and the northern slopes of Mt William. Preparation and implementation of the Denniston Plateau Weed Control Plan 2020–2025 (Williams and Huggins 2020) was a requirement of the Department of Conservation Access Arrangement for BRL to undertake opencast coal mining at the existing Escarpment Mine (now on care and maintenance). The Denniston Plateau Weed Control Plan lists 38 species to be controlled, with an additional nine species that have not been recorded recently (Williams and Huggins 2020). Department of Conservation (2024) reported that in 2023-2024 a total of 641 hours of weed control was undertaken across 140ha (c. 4.6 hours per hectare). Weeds controlled included gorse, Scotch broom, heath rush, matt grass (*Nardus stricta*), banana passionfruit (*Passiflora tarminiana*/*P. mixta*) and Kahili ginger (*Hedychium gardnerianum*).

Weed management on the Stockton Plateau is undertaken by contractors on behalf of BRL, including at the Cypress Mining Area in accordance with the Cypress Mine Rehabilitation Plan, the Cypress Mine Weed Management Plan, and the Stockton Mine Weed Control Environmental Management Sub Plan (STO-ENV-PLN-014 v2.1), which defines a weed as "undesirable plants that are growing where they are not wanted and/or recognised through the West Coast Regional Pest Plant Management Plan 2018-2028". The focus of weed management at Cypress Mining Area to date has been gorse, Scotch broom and *Juncus* spp. which threaten closure targets. Non-native species that do not pose a particular threat to the establishment of native vegetation are not specifically targeted unless they develop colonies of a size that are likely to impede reestablishment of native vegetation or jeopardise achievement of mine closure targets in accordance with the Cypress Weed Management Plan.

Weed control at Stockton is typically undertaken from October to March across specific zones (including rehabilitated areas) with targeted application of contractor hours. Specific weed control campaigns currently include:

- Spraying weeds on soil stockpiles
- Weed control around fixed plant areas, buildings, dams, roads and other infrastructure
- Eradicating gorse from several high value rehabilitated areas (including VDT sites and snail habitats)
- Ongoing management to prevent establishment of specific weeds in rehabilitated areas where weeds have emerged due to the use of weed contaminated topsoil
- Weed control (targeting pampas (*Cortaderia* spp.) and gorse) on the Ancillary Coal Mining Licence (AMCL) 2-5 Haul Road and down the aerial ropeway corridor to Ngakawau
- Collaboration with Regional Weedbusters Group to control historical weed incursions (including pampas and ginger (*Hedychium* spp.) around Ngakawau and Millerton to limit spread onto the Buller Plateaux.

BRL funded 4,566 contractor hours of weed control at Stockton (including Cypress Mining Area) in RY25. This has been a steady increase over previous years.

This WMP is intended to incorporate and supplement the existing control and extend the life of the previous weed management to align with the resource consents for the BPCP.

2.0 Weed Presence and Distribution

2.1 Introduction

Weeds on the Buller Plateaux are currently heavily concentrated within or near disturbed areas associated with roads, mining and associated infrastructure. Weeds which are established at higher altitude and exposed sites subject to high winds, such as Mt Frederick, Mt Augustus and the 2-5 Haul Road at Stockton Mine, can pose a risk to weed-free areas through dispersal of light, wind-borne weed seeds (such as pampas, *Cortaderia* spp., exotic grasses, thistles and some *Juncus* and *Senecio* species). Weeds with heavier seeds which are, or can be, waterborne (such as *Juncus squarrosus*, *J. lomatophyllus*,

gorse) or bulbs (such as montbretia (*Crocosmia* × *crocosmiiflora*) and are established in the upper part of stream catchments pose a risk to weed-free areas downstream. For example, several catchments draining from the Stockton CML have transported heath rush into formerly weed-free areas such as Cypress Mining Area and sensitive downstream sites such as the upper Waimangaroa Valley. In addition, roads, four-wheel drive and cycle tracks, walking tracks and other access points, including the Ngakawau aerial ropeway, can create bare sediment that allows establishment of new species within the WMA and then acts as a source of weed seeds for other areas. In addition, bird dispersed weeds (such as Kahili ginger, banana passionfruit and Himalayan honeysuckle (*Leycesteria formosa*)) may spread large distances across the landscape, including across what could otherwise be significant barriers, such as rivers. Others (such as *Rhododendron ponticum*) may spread slowly from historical gardens.

A total of 86 exotic species have been confirmed on the Buller Plateaux, 34 of which are considered environmental weeds (Ecological Solutions Limited 2026b, McAlpine & Howell 2024). Table 2 below lists 43 species which are classed as 'Priority Weeds' under this plan. This list includes weed species present on the Buller Plateaux and surrounds which are identified in the list of environmental weeds in New Zealand (McAlpine & Howell 2024), in the Denniston Plateau Weed Control Plan (Williams & Huggins 2020) and the West Coast Regional Pest Management Strategy (WCRC 2018). It also includes other exotic species with known distributions across the Buller Plateaux and surrounds. These species, along with their estimated distribution, status under previous plans, current status under this plan and control target, are listed in Table 2. 'Low Risk' weeds are not currently proposed for specific management and are listed in Attachment 2.

Weedy vegetation occupied at least 218ha (2.2%) of the c. 10,129ha Mapped Area comprising the Buller Plateaux and surrounds prior to the commencement of the BPCP (Ecological Solutions Limited 2026a), although the distribution of weeds was much wider than this figure suggests. Weeds occur at the highest densities in the vegetation types identified by Ecological Solutions Limited (2026a) as 'weedy shrubland' (204.3ha), 'weedy low pākihi (12.5ha) and 'exotic grassland' (2.3ha), although they also occur at lower densities at many other locations including rehabilitated sites. Weedy vegetation types of the Buller Plateaux are further described in Section 2.3.

Table 2: Environmental weeds present on the Buller Plateaux and surrounds, their status in this plan and targets for control.

Latin Name	Common Name	Dispersal Method	Location	Previous Classification	Classification in this plan	Goal
TREES AND SHRUBS						
Azalea sp.	Azalea	Wind/dehiscence	Denniston township and surrounds	Eradication target (DPWCP)	Priority Weed - Eradication and Surveillance	Zero density for Azalea on the plateaux
Buddleja davidii	Buddleia; butterfly bush	Wind, water	Occasional near Denniston Township, Burnetts Face Settlement, Cascade Mine	Environmental Weed (McAlpine & Howell 2024)	Priority Weed - Eradication and Surveillance	Zero density for buddleia on the plateaux
Cotoneaster coriaceus	Cotoneaster	Birds		Environmental Weed (McAlpine & Howell 2024)	Priority Weed - Eradication and Surveillance	Zero density for cotoneaster on the plateaux
Cotoneaster simonsii	Khasia berry	Birds	Denniston township and surrounds	Environmental Weed (McAlpine & Howell 2024), Eradication target (DPWCP)	Priority Weed - Eradication and Surveillance	Zero density for Khasia berry on the plateaux
Cytisus scoparius	Scotch broom; English broom	Dehiscence	Fairly widely distributed on disturbed parts of the plateau, but mostly well controlled. Probably one of the most significant weed threats to the plateaux and requires sustained effort to minimise impacts. Present around Denniston Museum and Coalbrookdale track.	Environmental Weed (McAlpine & Howell 2024, Sustained Control, Progressive Control (RPPMP)	Priority Weed - Progressive Reduction	Reduction in the extent and biomass of broom infestations.
Erica lusitanica	Spanish heath	Wind, water	Blackburn Pākihi, including access track from Mt William North	Environmental Weed (McAlpine & Howell 2024)	Priority Weed – Progressive Reduction	Reduction in the extent and biomass of Spanish heath infestations. No new locations detected

Escallonia rubra	Red escallonia	Wind, water, animals	Occasional near Denniston Township	Eradication target (DPWCP)	Priority Weed - Eradication and Surveillance	Zero density of escallonia on the plateaux
Fallopia japonica	Asiatic knotweed	Water, wind	Small infestation along Denniston Road, near Mine Creek bridge on road to Stockton and near Ngakawau load out (unknown if these are still present)	Priority Weed - Eradication and Surveillance target (DPWCP)	Priority Weed - Eradication and Surveillance	Zero density of Asiatic knotweed on the Plateaux
Hesperocyparis macrocarpa	Macrocarpa; Monterey cypress	Wind	Occasional planted trees at Denniston township.	Eradication target (DPWCP)	Priority Weed - Eradication and Surveillance	Zero density of macrocarpa on the plateaux
Ilex aquifolium	Common holly; English holly	Birds	Rare, around Denniston township.	Environmental Weed (McAlpine & Howell 2024), Eradication target (DPWCP)	Priority Weed - Eradication and Surveillance	Zero density of holly on the plateaux
Leycesteria formosa	Himalayan honeysuckle	Birds	Occasional plants amongst other scrub, particularly near Denniston township and Denniston Road. Also found near Cypress at least once.	Environmental Weed (McAlpine & Howell 2024, Progressive Control (RPPMP)	Priority Weed - Eradication and Surveillance	No new locations detected, existing locations reduced in extent and biomass
Lonicera periclymenum	English honeysuckle	Birds	Occasional at old house sites around Denniston township.	Not listed, priority based on traits.	Priority Weed - Eradication and Surveillance	Zero density of English honeysuckle on the plateaux
Pinus contorta	Contorta pine; Lodgepole pine; Tamarack pine	Wind	Occasional at old house sites around Denniston township and wilding nearby.	Environmental Weed (McAlpine & Howell 2024), Eradication target (DPWCP)	Priority Weed - Eradication and Surveillance	Zero density of pine species on the plateaux
Pinus mugo	Dwarf mountain pine	Wind	Occasional at old house sites around Denniston township and wilding nearby.	Environmental Weed (McAlpine & Howell 2024), Eradication target (DPWCP)	Priority Weed - Eradication and Surveillance	Zero density of pine species on the plateaux

Pinus radiata	Monterey pine; Radiata pine	Wind	Occasional at old house sites around Denniston township and wilding nearby. Local at Blackburn Pākihi.	Environmental Weed (McAlpine & Howell 2024), Eradication target (DPWCP)	Priority Weed - Eradication and Surveillance	Zero density of pine species on the plateaux
Prunus spp.	Cherry/Taiwan cherry	Birds	Occasional at old house sites around Denniston township.	Environmental Weed (McAlpine & Howell 2024), Eradication target (DPWCP)	Priority Weed - Eradication and Surveillance	Zero density of *Prunus* species on the plateaux
Rhododendron ponticum	Rhododendron	Wind	Occasional at old house sites around Denniston township.	Environmental Weed (McAlpine & Howell 2024), Eradication target (DPWCP)	Priority Weed - Eradication and Surveillance	Zero density of rhododendron species on the plateaux
Ribes sanguineum	Flowering currant	Birds	Occasional around Denniston gardens	Environmental Weed (McAlpine & Howell 2024), Eradication target (DPWCP)	Priority Weed - Eradication and Surveillance	Zero density of currant species on the plateaux
Salix cinerea	Grey willow	Wind/water	Localised around old houses at Denniston township.	Environmental Weed (McAlpine & Howell 2024), Eradication target (DPWCP)	Priority Weed - Eradication and Surveillance	Zero density of grey willow on the plateaux
Salix fragilis	Crack willow	Wind/water	Denniston Plateau – Sullivan CML and Coalbrookdale areas	Environmental Weed (McAlpine & Howell 2024)	Priority Weed - Eradication and Surveillance	Zero density of crack willow on the plateaux
Spiraea spp.	Bridal wreath; Spiraea	Water/wind	Dense infestation at the old school site on Burnetts Face Road		Priority Weed - Eradication and Surveillance	Zero density of Spiraea on the plateaux
Ulex europaeus	Gorse	Dehiscence/water	Common throughout Buller Plateaux and surrounds (including Blackburn Pākihi) at disturbed sites	Environmental Weed (McAlpine & Howell 2024, Sustained Control (RPPMP)	Progressive Reduction	Reduction in the extent and biomass of gorse infestations.
VINES AND LIANES						
Hedera helix	Ivy	Birds	A few plants near Denniston township and Burnetts Face Road	Environmental Weed (McAlpine & Howell 2024)	Priority Weed - Eradication and Surveillance	Zero density of ivy on the plateaux

Lonicera japonica	Japanese honeysuckle	Birds, vegetatively (stolons)	Forest edge near roadsides on Denniston Road and Conns Creek Road.	Environmental Weed (McAlpine & Howell 2024)	Priority Weed - Eradication and Surveillance	No new locations detected, existing locations reduced in extent and biomass
Passiflora tarminiana / *P. mixta*	Banana passionfruit	Birds	Lower parts of Denniston Road and Conns Creek Road	Environmental Weed (McAlpine & Howell 2024)	Priority Weed - Eradication and Surveillance	Zero density of banana passionfruit on the plateaux
Rubus fruticosus	Blackberry	Birds	Occasional around Denniston township and Burnetts Face, at old township sites around Stockton and Blackburn Pākihi.	Environmental Weed (McAlpine & Howell 2024)	Priority Weed - Progressive Reduction	No new locations detected, existing locations reduced in extent and biomass
Rubus laciniatus	Cut-leaved blackberry	Birds		Environmental Weed (McAlpine & Howell 2024)	Priority Weed - Progressive Reduction	No new locations detected, existing locations reduced in extent and biomass
DICOTYLEDON HERBS						
Hedychium gardnerianum	Kahili ginger; Wild ginger	Birds	Present at lower elevations on the Denniston Road and Conns Creek Road, and around Ngakawau Fixed Plant.	Environmental Weed (McAlpine & Howell 2024)	Priority Weed - Eradication and Surveillance	Zero density of ginger on the plateaux
DICOTYLEDON COMPOSITES						
Jacobaea vulgaris	Ragwort	Wind	Occasional at Stockton.	Environmental Weed (McAlpine & Howell 2024), Sustained Control (RPPMP).	Priority Weed – Eradication and Surveillance	Zero density of ragwort on the plateaux
MONOCOTYLEDONS						
Carex leporina	Oval sedge	Water, animals	Recorded from Coalbrookdale area and Cypress Tussock Storage pad.	Environmental Weed (McAlpine & Howell 2024).	Priority Weed - Eradication and Surveillance	Zero density of oval sedge on the plateaux
Cortaderia selloana, Cortaderia jubatus	Pampas	Wind	Occasional at Stockton.	Environmental Weed (McAlpine & Howell	Priority Weed – Eradication and Surveillance	Zero density of pampas on the plateaux

				2024), Progressive Containment (RPPMP).		
Crocosmia xcrocosmiiflora	Crocosmia; Montbretia	Water, soil movement	Localised patches across Denniston Plateau.	Environmental Weed (McAlpine & Howell 2024).	Priority Weed - Eradication and Surveillance	No new locations detected, existing locations reduced in extent and biomass
Hemerocallis fulva	Day lily	Dehiscence, wind/water	Occasional on Denniston Plateau.	Eradication target (DPWCP).	Priority Weed - Eradication and Surveillance	Zero density of day lily on the plateaux
Holcus lanatus	Yorkshire fog	Wind	Common throughout Denniston, Stockton and Blackburn Pākihi at disturbed areas	Environmental Weed (McAlpine & Howell 2024).	Priority Weed - Progressive Reduction	Known locations reduced in extent and biomass
Juncus bulbosus	Bulbous rush	Water/wind, animals	Common in wet areas/open water in disturbed areas of both plateaux.	Environmental Weed (McAlpine & Howell 2024).	Priority Weed - Progressive Reduction	Existing locations reduced in extent and biomass
Juncus canadensis	Tailed-seed rush	Water/wind, animals	Common in wet areas/open water in disturbed areas of both plateaux and Blackburn Pākihi.		Priority Weed - Progressive Reduction	Existing locations reduced in extent and biomass
Juncus lomatophyllus	Broad-leaved rush	Water/wind, animals	Common in damp areas in disturbed areas of both plateaux and Blackburn Pākihi.	Environmental Weed (McAlpine & Howell 2024).	Priority Weed - Progressive Reduction	Existing locations reduced in extent and biomass
Juncus squarrosus	Heath rush	Water/wind, animals	Common throughout disturbed areas of both plateaux and Blackburn Pākihi.	Environmental Weed (McAlpine & Howell 2024)	Priority Weed - Progressive Reduction	Existing locations reduced in extent and biomass. Focus on reducing spread via control in upper catchments
Lilium lancifolium	Tiger lily	Wind, animals, soil movement	Localised at Denniston. Township and Burnetts Face	Not listed yet shows weedy potential.	Priority Weed - Eradication and Surveillance	Zero density of tiger lily on the plateaux

Nardus stricta	Mat grass	Animals, soil movement, water, rhizomes	Recorded from Coalbrookdale area.	Environmental Weed (McAlpine & Howell 2024)	Priority Weed – Eradication and Surveillance	Zero density of mat grass on the plateaux
Pseudosasa japonica	Bamboo	Wind/water, rhizomes	Occasional at Stockton.	Environmental Weed (McAlpine & Howell 2024)	Priority Weed – Eradication and Surveillance	Zero density of bamboo on the plateaux
BRYOPHYTES (NON-VASCULAR)						
Marchantia polymorpha subsp. *polymorpha*	Marchantia (liverwort)	Water, soil movement (fragmentation/ spores), wind (spores).	Recorded from Denniston and Stockton Plateaux.	Not listed.	Priority Weed - Progressive Reduction	Focus on reducing spread via biosecurity control. No greater than 10% in planted areas.
Sphagnum subnitens	Weasel moss	Wind (spores), fragmentation.	Recorded from Stockton Plateau.	Not listed.	Priority Weed - Progressive Reduction	No greater than 10% in planted areas.

2.2 Weeds Present

The most widespread weeds across the Buller Plateaux are, in decreasing order of impact: heath rush, gorse and Yorkshire fog. In addition, scotch broom, whilst less common than gorse, appears to be increasing (Williams and Huggins 2020) and Himalayan honeysuckle is established, but not yet common. The number of weed species present, but not yet well established is much greater and includes montbretia, mat grass, foxglove (*Digitalis purpurea*), English ivy (*Helix hedera*) and others listed in Table 2 and Attachment 2.

The two most common, and therefore highest priority, weeds are gorse and heath rush, which have been the primary focus of weed control efforts to date (Williams and Huggins 2020). This approach will continue. These weeds are hardy, have long-lived seeds and are tolerant of local conditions including the harsh climate and infertile and poorly drained soils. Gorse and heath rush are widespread alongside roads and across previously disturbed areas. In many cases they occur with exotic grasses and herbs, exploiting the changed soil conditions and removal of competing native vegetation brought about by human activity including mining. Gorse, along with broom and other legumes (which fix nitrogen), may facilitate invasion by other weeds by increasing soil fertility (Galappaththi et al. 2023). These species are also highly flammable and are fire-adapted, unlike the native ecosystems.

In 2010, willow (*Salix* spp.), Himalayan honeysuckle, montbretia and butterfly bush (*Buddleja davidii*) were present in the vicinity of Millerton and the Fly Creek access road as isolated populations, and were being controlled where found (Solid Energy 2010). Montbretia is still present in isolated patches along Fly Creek Road and the access track to Mt William North, but Himalayan honeysuckle and butterfly bush have not been recorded at those locations recently. Spanish heath (*Erica lusitanica*) occurs at Blackburn Pākihi and along the access track from Mt William North. These areas will be investigated as part of pre-commencement weed mapping.

2.3 Weedy Vegetation Types

Weeds primarily occur in three of the 13 vegetation types present within the BPCP Area identified by Ecological Solutions Limited (2026a) – weedy shrubland, weedy low pākihi and exotic grassland. The distribution of these three vegetation types at the Denniston and Stockton Plateaux is shown in Figure 3and Figure 4 respectively.

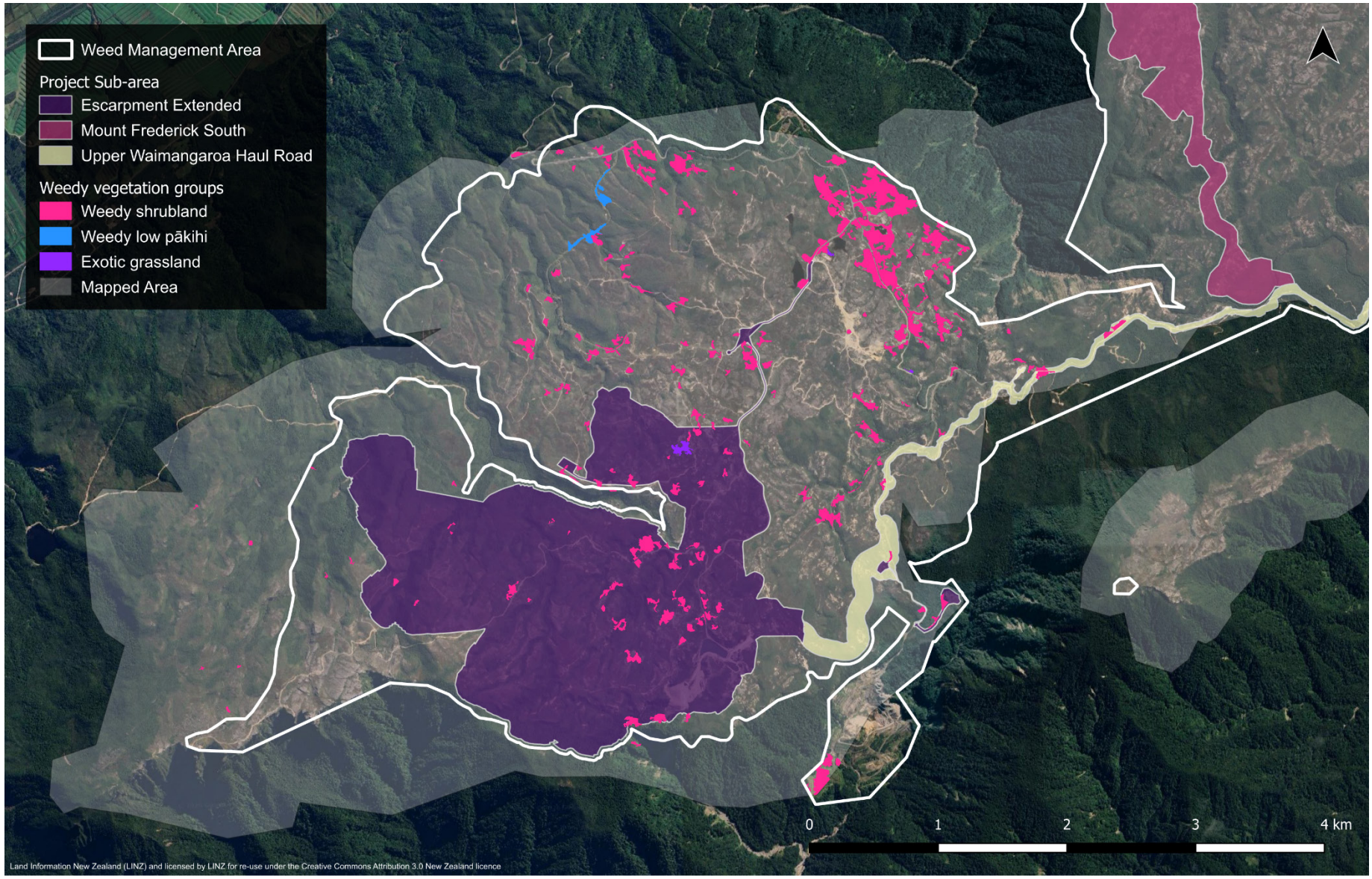

Figure 3: Location of exotic vegetation types on the Denniston Plateau

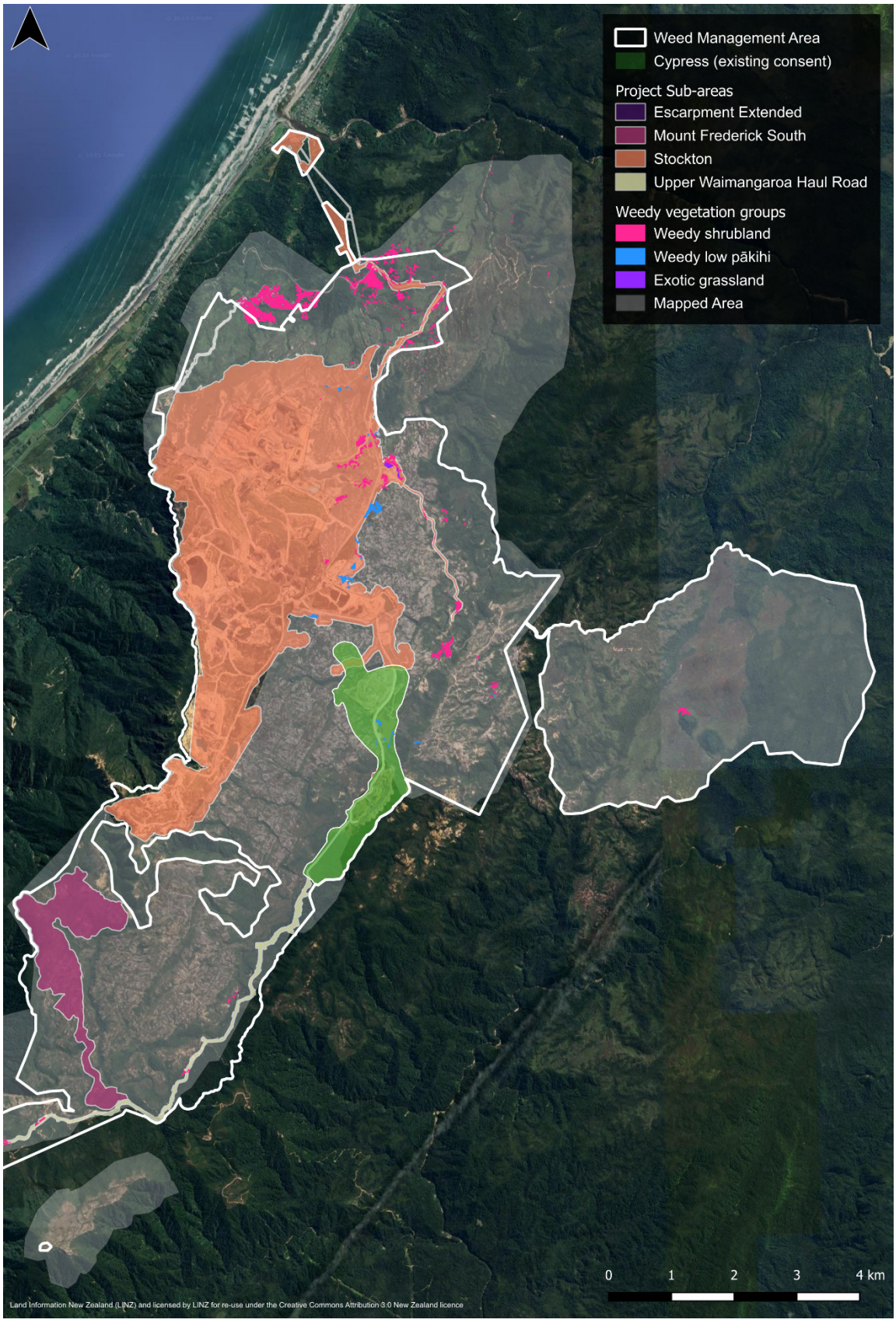

Figure 4: Location of exotic vegetation types on the Stockton Plateau, excluding existing mining areas at Stockton.

These vegetation types are described as follows:

- **Weedy Shrubland.** 2m – 4m high shrubland featuring mānuka (*Leptospermum scoparium*), kāmahi (*Pterophylla racemosa*) and pink pine (*Halocarpus biformis*) with seven common exotic species: gorse, rushes (soft rush (*Juncus effusus*), heath rush and tailed-seeded rush (*Juncus canadensis*)) and grasses (Yorkshire fog (*Holcus lanatus*), browntop (*Agrostis capillaris*) and sweet vernal (*Anthoxanthum odoratum*)). An example of weedy shrubland is shown in Figure 5.
- **Weedy Low pākihi.** Low open vegetation 0.5 – 0.75m tall, dominated by wire rush, red tussock and heath rush. Typically found around disturbed areas such as road and track edges. An example of weedy low pākihi is shown in Figure 6.
- **Exotic grassland.** 0.3 – 0.45m tall, dominated by heath rush, along with exotic grasses such as browntop and Yorkshire fog. Exotic herbs such as catsear (*Hypochaeris radicata*) were also present, along with small amounts of native grasses and low-growing shrubs. This vegetation type occurs rarely at disturbed areas on both the Stockton and Denniston Plateaux. An example of exotic grassland is shown in Figure 7.

Figure 5: Weedy shrubland (gorse, heath rush) near Cedar Creek Road.

Figure 6: Weedy low pākihi (bright green heath rush) on the Stockton Plateau.

Figure 7: Exotic grassland dominated by heath rush with common gorse and toetoe near Sullivan Mine, Denniston Plateau.

2.4 Vulnerable Habitats

The vegetation of the Buller Plateaux is variable in structure and species composition, with vegetation groups which are shorter in stature and lower in canopy cover (e.g., pākihi, tussockland, herbfield) being more vulnerable to weeds than taller, denser groups (e.g., forest, shrubland).

The overall vulnerability to weed invasion of the 13 vegetation types and three other landcover types present within the WMA mapped by Ecological Solutions Limited (2026a) is set out in Table 3. Overall, 49.2% of the vegetation is regarded as either most vulnerable (c. 4.2%), highly vulnerable (c. 40.1%) or vulnerable (c. 4.8%) with the remaining c. 50.8% considered least vulnerable. For the purposes of this WMP, weed control within and adjacent to large areas of the most vulnerable habitats will be prioritised over control of weeds in less vulnerable areas.

The most vulnerable areas (328ha, c.4.2%) are those where vegetation has been cleared and soil has been disturbed because this removes competition from existing vegetation and can expose or introduce weed propagules and increase the viability of those propagules. Bare ground at Stockton and Cypress mines is included in the 'most vulnerable' habitat category due to the large amount of disturbed ground and the relatively high presence of weed species, even though weed control already takes place at these locations. Weedy vegetation elsewhere across the plateaux is also considered highly vulnerable due to the existing weed presence. The presence of weeds increases the chances of them increasing in extent and biomass and dispersing beyond their current limit if not controlled.

Blackburn Pākihi has lower elevation and lower relief than the Buller Plateaux. It is downstream, and downwind, of areas previously disturbed by mining, has existing access tracks and is used by feral animals, all of which increase the weed pressure. The vegetation comprises tussockland and pākihi habitats surrounded by taller shrubland and forest. Spanish heath (*Erica lusitanica*), gorse, broom, wilding pine, heath rush, Yorkshire fog and *Juncus canadensis* are among the weed species known to be present, including along the access track.

Table 3: Vulnerability of different land cover types within the WMA to weeds.

Type/class	Extent (ha)	% of mapped extent of Weed Management Area	Characteristics	Type/class
Most Vulnerable				
Cleared vegetation (i.e., roads, tracks, disturbed areas, extensive highwalls)	328	4.2	Bare ground, disturbed soil, open canopy, weeds present, seed dispersal by people/machinery, soil stockpile areas, fixed plant areas, buildings and infrastructure e.g. dams, stored vegetation/other rehabilitation resources	Non-vegetated land cover
Total 'Most Vulnerable'	**328 (4.2%)**			
Highly Vulnerable				
Water (i.e., margins of natural watercourses, islands, constructed ponds/tarns, dams)	21	0.3	Bare ground, disturbed soil, open canopy, seed dispersal from water movement/upstream, weeds present	Non-vegetated land cover

Low pākihi	2,257	29.2	Bare ground, open canopy, tarns, close to disturbed areas	Low vegetation
Weedy low pākihi	11	0.1	Bare ground, open canopy, tarns, weeds present	Low vegetation
Tussock-mountain flax shrubland (including herbfield)	108	1.4	Open canopy, tarns, close to disturbed areas	Low vegetation
Exotic grassland	2	0.03	Open canopy, bare ground, disturbed soil, weeds present, close to disturbed areas	Low vegetation
Weedy shrubland	131	1.7	Weeds present, close to disturbed areas	Shrubland
Mānuka-tussock-wire rush shrubland	574	7.4	Low/discontinuous canopy, tarns, close to disturbed areas	Shrubland
Total Highly Vulnerable	**3,105 (40.1%)**			
Vulnerable				
Mānuka-mountain flax/wire rush shrubland	130	1.7	Low/discontinuous canopy, but dense ground cover	Shrubland
Leatherwood shrubland	20	0.3	Moderate height and canopy cover, high altitude, exposed and away from frequently disturbed areas	Shrubland
Mānuka/Gahnia-wire rush shrubland	220	2.8	Low/discontinuous canopy but dense ground cover	Shrubland
Total Vulnerable	**369 (4.8%)**			
Least Vulnerable				
Mānuka-mountain beech-podocarp shrubland	1,021	13.2	Higher structural diversity and canopy cover/height, dense ground cover	Shrubland
Mixed beech-podocarp-broadleaved forest	307	4.0	Tall, dense canopy, high structural diversity and away from frequently disturbed areas	Forest
Southern rātā-mountain beech-podocarp forest	1,754	22.7	Dense canopy and ground cover, high structural diversity	Forest
Silver beech-mountain beech forest	39	0.5	Dense canopy and ground cover, high structural diversity	Forest
Bare Rock	811	10.5	Lacks soil	Non-vegetated land cover
Total Least Vulnerable	**3,933 (50.8%)**			

Total Mapped Vegetation	**7,735**	**100%**		
Weed Management Area	**9,431**			
Stockton Mine (2024)	**1,302**			
Unmapped	**394**			

Note that the total extent of mapped vegetation in Table 2 is less than the extent of the WMA because the WMA extends beyond the Mapped Area and includes Stockton and Cypress Mines, which were not included in the Mapped Area. These areas will be surveyed prior to management commencing.

The location of different vegetation and land cover types according to their vulnerability to weeds are shown in Figure 8(Denniston) and Figure 9 (Stockton and Blackburn Pākihi).

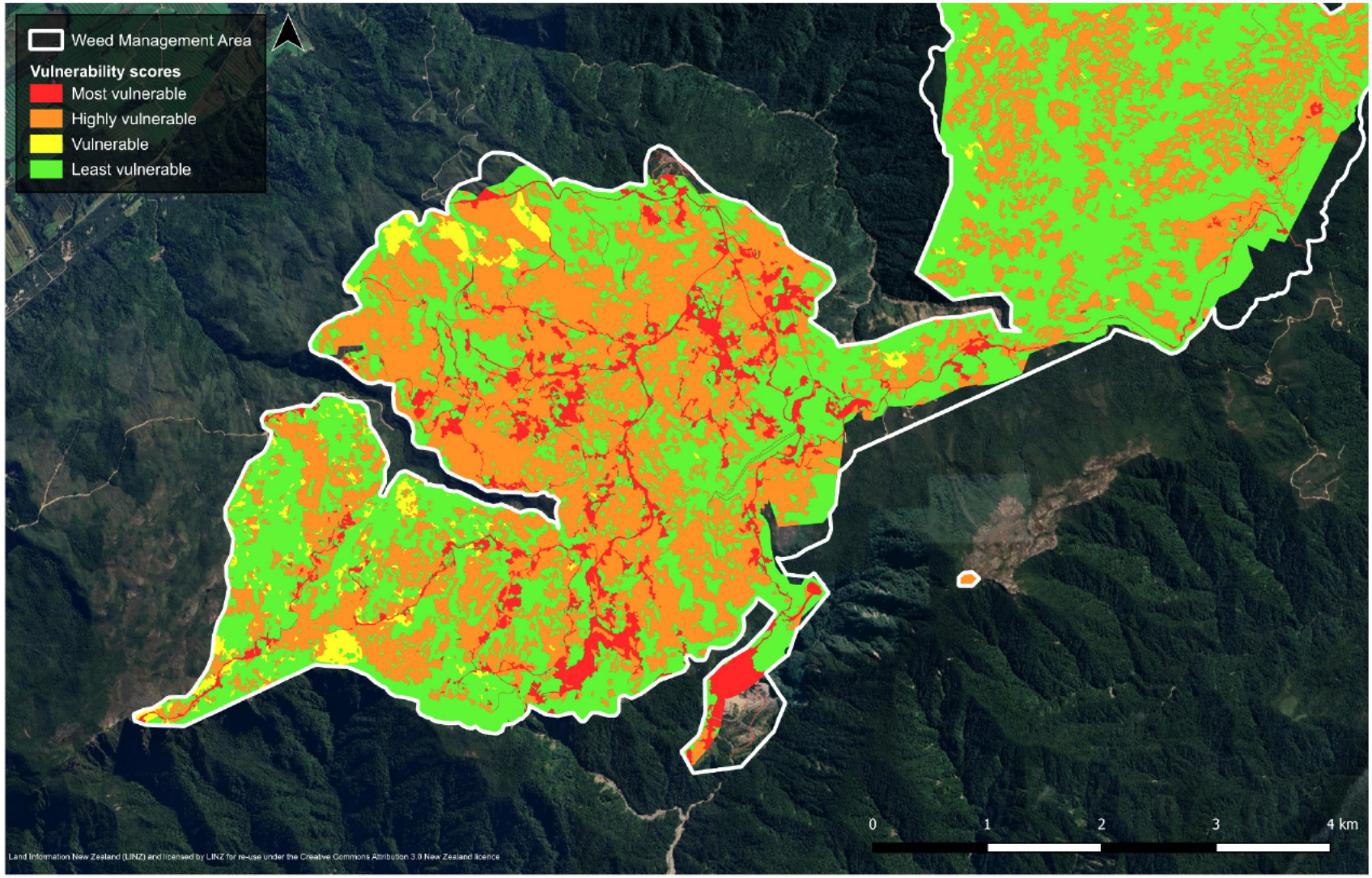

Figure 8: Vulnerability score for habitats within the Denniston Plateau and surrounds.

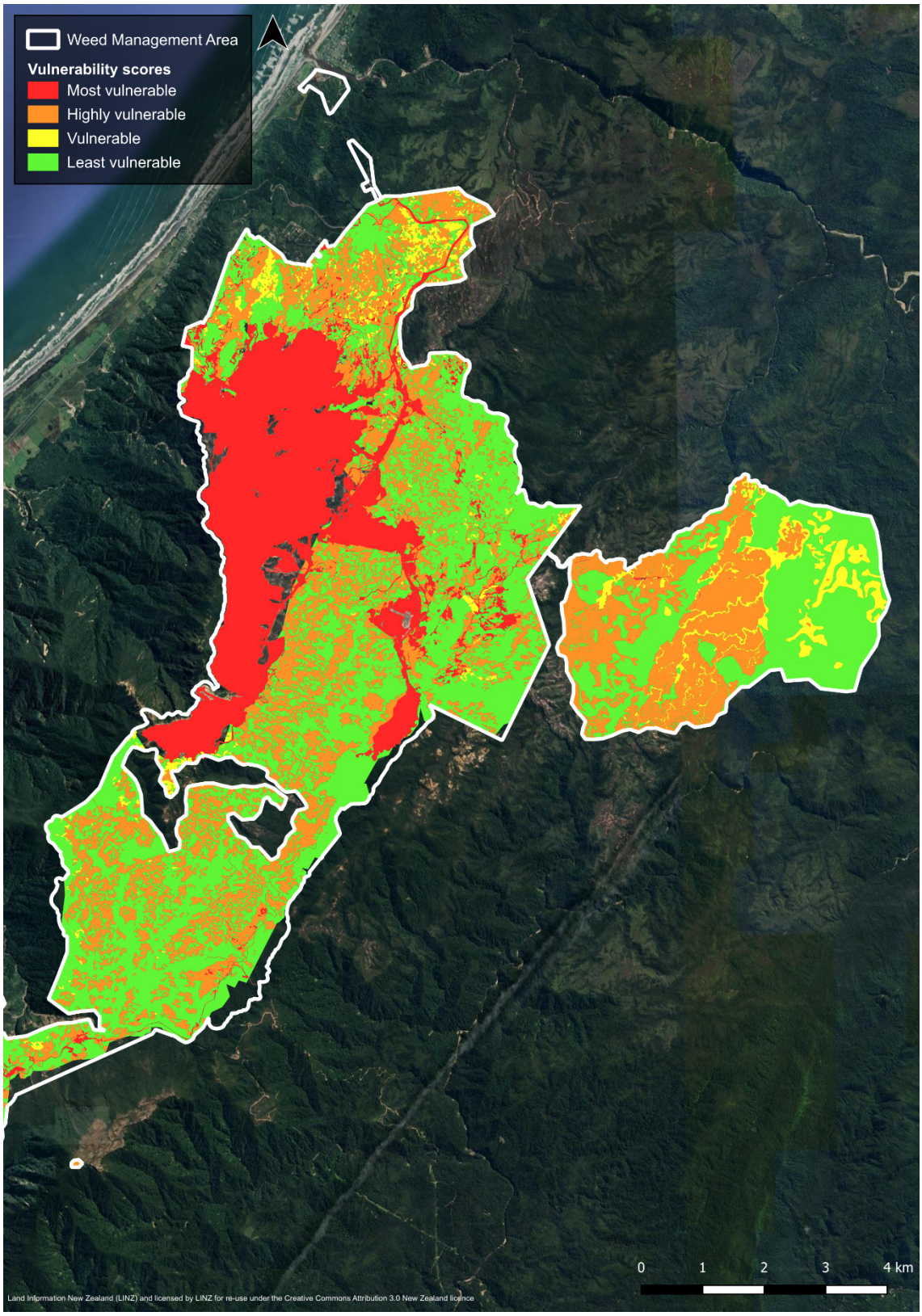

Figure 9: Vulnerability score for habitats within the Stockton Plateau, Blackburn Pākihi and surrounds.

2.5 Prioritising locations

The BPCP will temporarily (for at least 30 years) increase the amount of 'vulnerable habitat' due to vegetation clearance and subsequent mining activities, but the location of the vulnerable habitats will move across the Project Area as mining proceeds and rehabilitation occurs and achieves closure. The BPCP would remove c. 755ha including c. 619ha of vegetation and 136ha of other land covers over the mine life with a further c. 128ha being affected by edge effects. Priority locations for weed control will change throughout the life of the project, depending on the mine stage, current disturbance and any rehabilitation activities. The existing Stockton CML and Cypress Mining Consent Area, including rehabilitation and infrastructure areas, are subject to weed control campaigns as outlined in Section 1.10. The process described below to prioritise locations excludes Cypress Mining Area as weed control and monitoring will continue as per the existing consent requirements for that area.

Priority areas are defined as habitats that are 'most vulnerable' (i.e., roads, tracks, cleared vegetation and current mining areas) combined with a subset of 'highly vulnerable' habitats that consist of weedy vegetation types (weedy low pākihi, exotic grassland and weedy shrubland). The location of Priority Areas is shown in Figure 10, and includes a 30m buffer to help lower the potential for weeds to establish and spread. Figure 10 also includes rehabilitated areas (i.e., planted and VDT) to RY 2025 at Stockton Mine, which forms part of the 'most vulnerable' habitat and 'priority areas,' and will require high attention to weed control to ensure a successful rehabilitation outcome.

Where exotic species are used for stabilisation of rehabilitated and disturbed areas, or where revegetation or other methods with a high potential to inadvertently introduce exotic vegetation are used, affected areas will be designated 'high priority' for weed surveillance and control as set out in Section 3.3.2 of the Biosecurity Management Plan (BPCP-ENV-PLN-007).

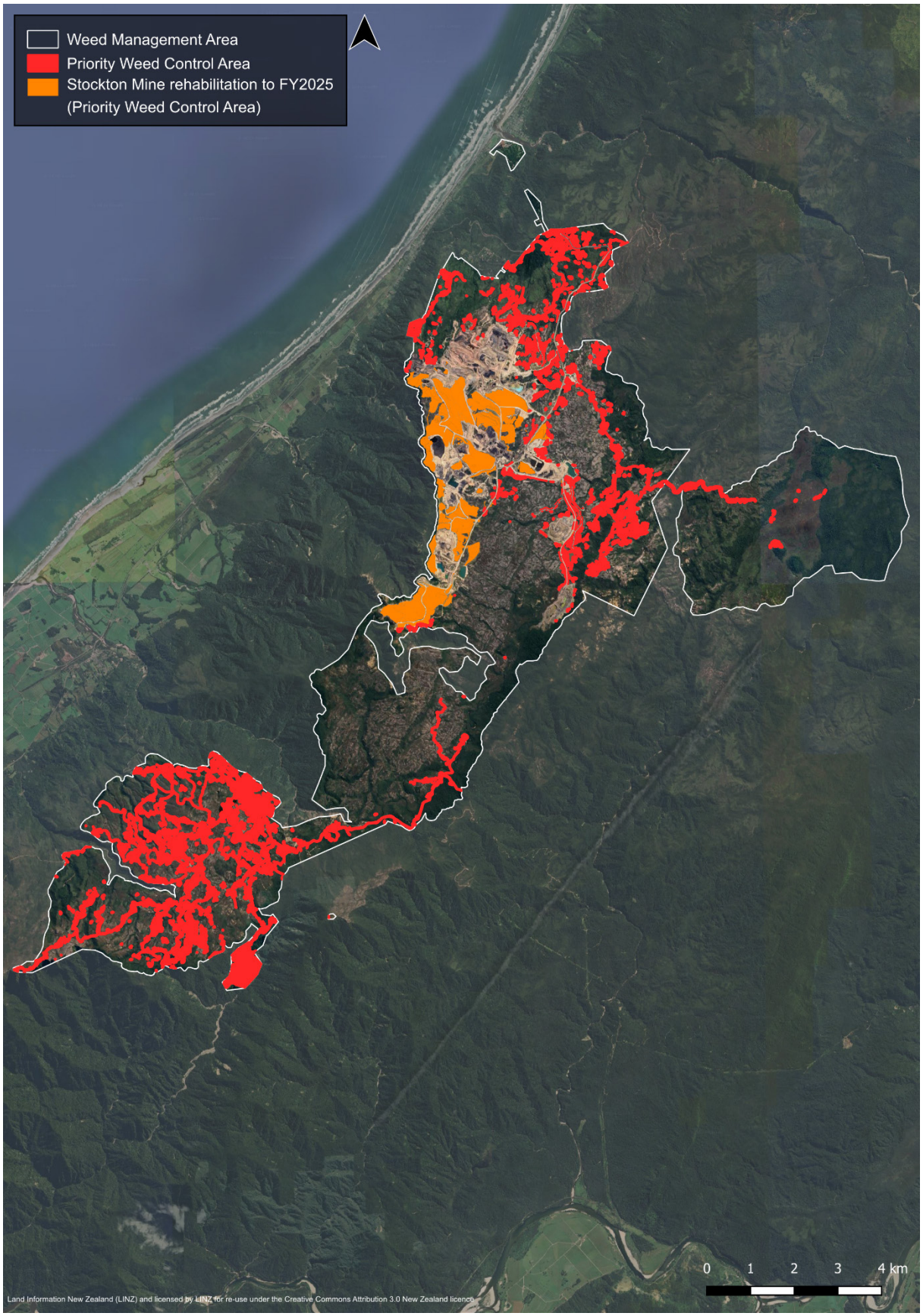

Figure 10: Priority Weed Control Areas including Stockton rehabilitation areas within the WMA.

To create 'units' for weed management, 1km^2 grids have been applied to the WMA taking into account priority areas and the upper catchments ('top of streams') as shown in Figure 11. Units have been prioritised as follows:

- High: Units containing top of streams **within** priority areas.
- Medium: Units containing top of streams **and** priority areas that don't overlap.
- Low: Units containing top of streams **or** priority areas, or neither.

These units apply to the whole WMA and will be used to inform the baseline survey effort as described in Section 4.2. Priority classes of units may change depending on the findings of the baseline survey and the effectiveness of control over time.

Weed control across the WMA will be prioritised as follows:

a) Within Residual Effects Management Areas, in order of unit priority; then

b) Within Project sub-areas (including 30m buffer area) as disturbance occurs, then in order of unit priority; then

c) High priority units outside Residual Effects Management Areas and Project sub-areas; then

d) Medium priority units outside Residual Effects Management Areas and Project sub-areas; then

e) Low priority units outside Residual Effects Management Areas and Project sub-areas.

The UWHR will remain a priority for weed control throughout the life of the project given that it connects the two plateaux and will be subject to vehicle and heavy machinery traffic. Following construction of the UWHR, identification of locations along the road where weeds are most likely to establish (e.g., drains, sediment ponds) will be used to assist in prioritising weed management within the UWHR.

Prioritising weed control within each unit will be done using a scoring system that considers weed species, habitat vulnerability as set out in Table 3 and priority areas (as shown in Figure 11). To calculate the priority score for a particular location within each unit, the management category, habitat vulnerability and priority are determined and assigned a score as shown in Table 3. These scores are then multiplied to give an overall 'Priority Score' as follows:

- High Priority: 32 – 64
- Moderate Priority: 16 – 31
- Low Priority: 2 – 15

By way of example, for a Progressive Reduction (PR) weed such as gorse in a cleared (highest vulnerability) location next to a road (priority) area, the scores would be 4 x 4 x 4 = 64, resulting in gorse being a high priority for control at that location. A lower high priority score (e.g., 32), would be a lower priority than a higher high priority score (e.g., 64).

Table 4: Assigning priority to weed control based on weed management category, habitat vulnerability and area priority

Score	Management Category	Habitat Vulnerability	Priority areas
1	Low risk	Least Vulnerable	
2		Vulnerable	Non-priority
3	Eradication and Surveillance	Highly Vulnerable	
4	Progressive Reduction	Most Vulnerable	Priority

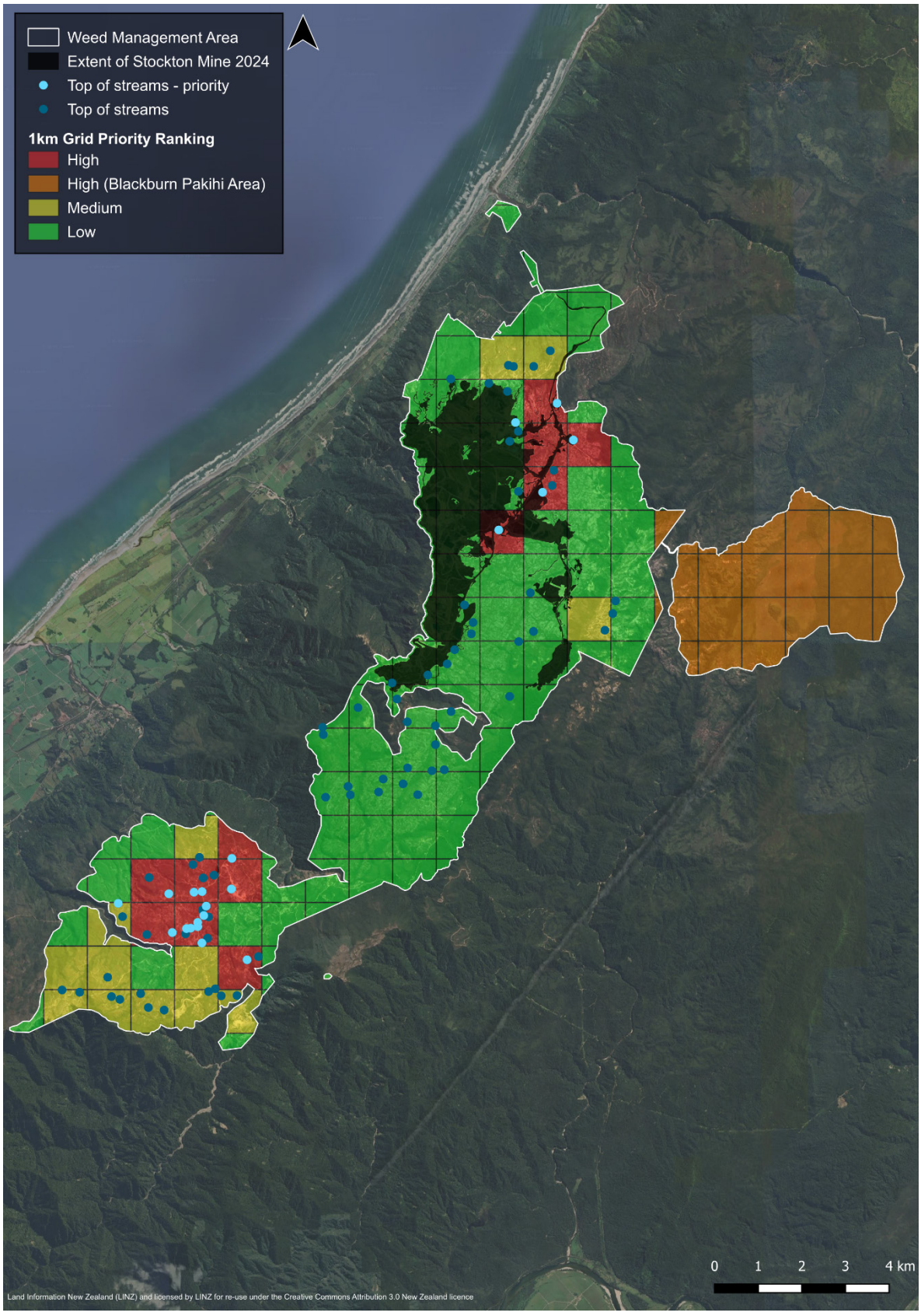

Figure 11: 1km grid units ranked by priority within the WMA.

2.6 Emerging threats

In 2024 the number of naturalised exotic plants in New Zealand was 2,600 and this number continues to grow (McAlpine & Howell 2024). Even if no further introductions of exotic plants occur, due to the substantial 'invasion debt' at least some of these exotic species are expected to be in a 'lag phase' of their population growth and are likely to become naturalised in the future (Stanley et al. 2015). For these reasons future weed invasions are likely, but unpredictable with respect to timing, species and specific location.

Weed management strategies must be responsive to emerging threats. In order to respond to invasions of new weed species, environmental managers must be able to detect them as they arise and to assess the threat each new species presents. Prediction of the outcome of a new plant invasion within the WMA is difficult, with relevant documented examples scarce.

In order to properly assign management resources, assessment and prioritisation of potential weeds is important. Prediction of the invasiveness of species is difficult due to the complexities of the dynamic relationships between the invading species and the many ecosystem components that could influence its success. There are existing methodologies, none of which are ideally suited to assessment in this context. The following prioritisation process has been adapted from Williams and Newfield (2002).

The risk of each exotic species present will be assessed based on the following traits:

- Aggressive/fast growth;
- Dense growth habit (smothering other plants or preventing them establishing);
- Climbing lianes or creeping groundcover growth habit;
- Outcompetes and displaces indigenous plants;
- Produces large numbers of wind-borne or bird-borne seeds;
- Seeds survive/remain viable for a long time;
- Tolerant to competition with other plants for light, water, nutrients, and space;
- Able to grow in shallow, acidic, low fertility soil conditions;
- Recognised as an environmental weed elsewhere in New Zealand or the world;
- Resistant to control measures.

"High" risk plants include those which display two or more of these traits. Species already known from the WMA and surrounds were assessed using these criteria to inform their grouping into management categories as shown in Tables 1 and 3 above.

New species arriving and detected during monitoring will be assessed using these criteria. "High" risk plants would be allocated to one of two management categories, 'Progressive Reduction' or 'Eradication and Surveillance' depending on the feasibility of managing them as described further in Section 3 below.

3.0 Weed Management

3.1 Approach

The weed management approach is set out in Figure 12 and explained in more detail in the following sections (Sections 3 – 5).

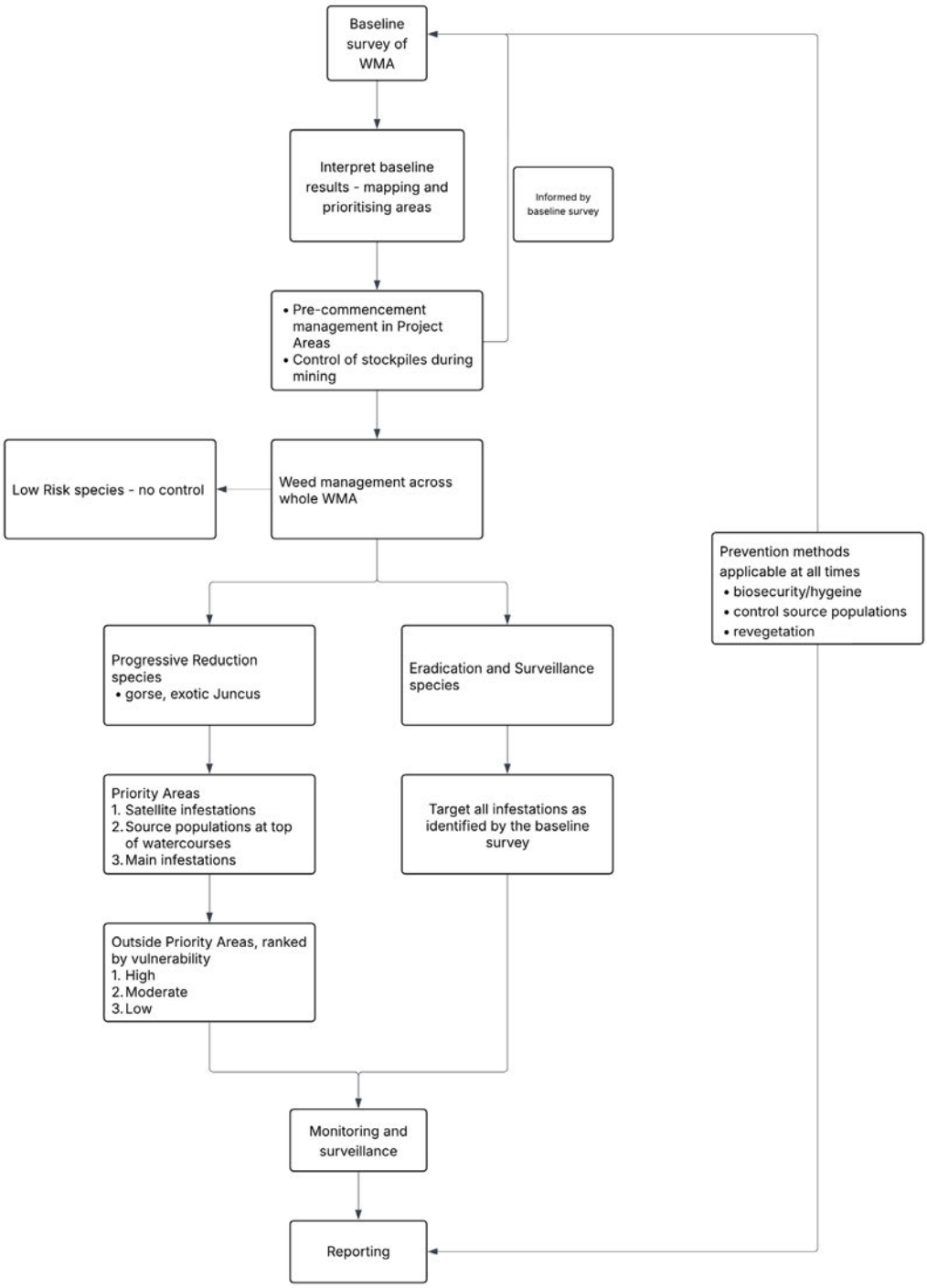

Figure 12: Weed Management approach within the BPCP Weed Management Area

3.2 Pre-commencement Management

A baseline survey of the WMA, including any areas not yet surveyed, will be undertaken prior to the commencement of mining in the particular Project sub-areas in order to identify the location and extent of weed infestations in the area to be mined and produce a comprehensive weed map. This survey could be undertaken in stages (dependent on mining) and is described in more detail in Section 4.2. The results of this baseline survey will detail weed presence and distribution within the WMA, which will inform any pre-mining weed control requirements.

Comprehensive control of weeds in the individual Project sub-areas in response to the baseline survey is required prior to mining commencing in order to reduce the potential for existing weeds to be dispersed by subsequent mining activities, including earthworks and movement of soils. Following the baseline survey, BRL will conduct pre-disturbance weed control twice yearly (between spring and autumn) and collate existing information on the location, abundance and distribution of key weed species to inform future management.

Pre-disturbance control of weeds, including herbicide spraying, will be used where required in order to reduce the abundance of weeds. These locations include:

- Along the edges of roads and tracks. Gorse, broom and exotic *Juncus*, will be sprayed approximately every six months along road verges, 4WD tracks and haul roads. Spraying will extend into the surrounding vegetation up to 5m as required and continue until mining commences.
- Areas where there has been previous mining activity. This includes Deep Creek, Escarpment Mine and along Cedar Creek Road.

Prior to vegetation clearance at the Project sub-areas, the presence, identity and approximate extent of weed species will be confirmed. If priority weeds remain present at a site or priority weeds have been recorded at the site within the expected longevity of their seed banks (nominally 30 - 50 years for gorse, broom and heath rush), they will be controlled using the methods set out in

Table 4, and the vegetation and soils managed separately to avoid spreading weeds around the site. The weed control methods adopted will be those most suited to the species and densities of weeds present.

3.3 Prevention

3.3.1 Rationale

The first priority of weed management is to prevent new species and populations establishing within the WMA. Mining activities are a major potential vector of weeds due to the movement of earth, vegetation, machinery, vehicles and personnel and the new transport corridor will provide a route for weeds which might currently be localised to spread between the two Plateaux. Failure to prevent new weeds establishing will result in much greater effort being required later to avoid or minimise adverse effects.

Future (delayed) control of new weeds will be complicated by factors including the scale and duration of activities, the existence of long-lived propagules (e.g. gorse seeds), and that the disturbance created by weed control can create additional opportunities for further weed invasion, which may be more rapid than revegetation by indigenous species. The prevention strategy includes:

- Incorporation of biosecurity and weed hygiene into mine planning and other activities as set out in Section 3.3 of the Biosecurity Management Plan (BPCP-ENV-PLN-007).
- Control of potential source populations of weeds, both within the WMA and in the surrounding landscape (i.e., adjoining land in agreement with the landowner) where appropriate.
- Control of weeds and prevention of seeding at soil stockpiles.
- Nursery hygiene and weed control of 'hitch hiker' weeds with plants to be used for rehabilitation.
- Prompt revegetation and rehabilitation of disturbed areas to reduce vulnerability to invasion.

Each of these matters is considered in more detail below.

3.3.2 Biosecurity and Hygiene

The following biosecurity practices will be adopted and are discussed further in the Biosecurity Management Plan for the BPCP (BPCP-ENV-PLN-007):

- Management of substrates used for rehabilitation or roading surfaces. Weeds growing on rock and soil used for these purposes will be subject to weed control at least twice annually, including soon after laydown, so as to capture and remove any weeds that arrive from quarries or other external sources.
- Biosecurity measures such as boot wash stations will be installed at entrances to sensitive locations (i.e., vulnerable habitats described in Section 2.4). This may include VDT locations, and planted areas classified as one of the 'low vegetation' types described in the Rehabilitation Management Plan (BPCP-ENV-PLN-002).

- Vehicle wheel wash for vehicles associated with civil and rehabilitation works travelling between existing weedy areas and weed free areas where there is an identified risk of weed transfer. A vehicle wash for tracked vehicles and new contractor vehicles will also be used when risk assessment indicates it is required after first arriving at site.
- Visual assessments of drilling rigs and other associated equipment will be undertaken prior to being transported on site to identify potential weed contaminants.
- Equipment is to be cleaned thoroughly prior to transportation to drilling sites to minimise contamination risk, especially tracked machines (e.g. bulldozers, excavators or drilling rigs). Care is to be taken to avoid drilling runoff or associated discharges directly entering surface water bodies, potentially carrying weeds to other mining areas or undisturbed land. Exploration drilling site disturbance is to be the minimum required with sites to be left in a tidy condition upon completion of drilling activity and sediment controls in place.
- Erosion control products such as mulches and hydroseeding may be a source of weeds so equipment associated with these should be cleaned thoroughly to ensure no contamination of unwanted species.
- Any nursery raised plants for restoration plantings should be sourced from nurseries which follow best-practice hygiene measures and have Plant Pass accreditation[2] or similar. BRL's own nursery to follow best-practice hygiene measures.
- Erosion control materials and other substrate materials (including but not limited to gravel and sand) used within the Project Area should be locally sourced and free of weeds, where practicable. Substrate materials must not be sourced from locations where they have been stockpiled in contact with soils, including directly on the ground, where this may result in contamination by weeds or weed seeds.
- Ensuring that hay is not used as mulch within the Project Area. Where straw is used, monitoring measures should be implemented to ensure that weeds are not introduced or propagated as a result of its use.

In addition to the matters above which are discussed further in the Biosecurity Management Plan (BPCP-ENV-PLN-007), where disposal of weed-infested material is required, disposal is undertaken to a location and in a manner that prevents the spread of viable weed propagules. This could include disposal to an engineered landfill facility where these soils are accepted, or burial within areas to be rehabilitated to forest where weeds are likely to be shaded out and their spread prevented.

3.3.3 Drill Sites

A survey of 30 former drill sites across the Buller Plateaux has revealed that drill sites have generally remained weed free (Ecological Solutions Limited 2026c). Maintaining drill sites free of weeds is an important investment to avoid creating nodes of weeds in otherwise highly natural areas. Any additional drill sites will be surveyed for weeds prior to the commencement of drilling to establish a baseline and confirm the presence, identity and approximate extent of weeds, and at least three times following the

[2] Plant Pass is a voluntary certification scheme that promotes and supports good biosecurity practice in the nursery and its supply chain. See www.plantpass.org.nz for more details.

conclusion of drilling and weed control implemented as necessary. Surveys at each drill site will be undertaken at the following intervals:

a) Within six months of completion of drilling;

b) One year after drilling is completed; and

c) Five years after drilling is completed.

In the event that weeds are detected at any of these visits, control and additional follow-up monitoring will be instigated. Drill site surveys may be incorporated into other weed surveys being conducted.

3.3.4 Control of Source Populations

Once the baseline survey has been completed and the location and extent of source populations identified, control of those source populations, particularly any within the priority grid units identified in Figure 11 (or subsequent revision), will be required in order to prevent weeds spreading. This control includes the following:

- Soil stockpiles and vegetation storage areas to be maintained as weed free via regular weed control to eliminate weeds before seeding occurs.
- Sediment fences and associated trapped sediment to be maintained as weed free via regular weed control and any unvegetated sediment to be removed regularly and as part of mine closure.
- Prioritisation of removal of Progressive Reduction weeds along mine roads to prevent seed dispersal by vehicles.
- Prioritisation of removal of Progressive Reduction weeds along streams and flow paths, particularly in upper catchments or areas upstream of weed free areas (e.g., Deep Stream and Waimangaroa River catchments).
- Control of Progressive Reduction weeds at high altitude or exposed sites.
- Control of wind dispersed species up-wind (west) of sensitive sites (e.g., rehabilitated sites).
- Targeted weed control will be undertaken in any areas of Vegetation Direct Transfer (VDT) stored for later use in rehabilitation. Unchecked weed growth across these areas poses a high risk given significant weed sources nearby that may contaminate VDT, which in time will be returned to the rehabilitated sites.

3.3.5 Revegetation

Early establishment of ground cover on disturbed soils is necessary in order to reduce the amount of space and the length of time available for weed establishment and therefore the vulnerability to weed invasion including:

- Use of VDT as first priority rehabilitation method and follow up weed control in VDT areas to maintain ecological integrity of transferred sods.

- Use of local biomass such as felled trees and branches and large rock to reduce the amount of bare substrate and create microhabitats to promote vegetation growth.
- Planting of indigenous vegetation as soon as possible after earthworks and biomass spreading is complete.
- Targeted use (including type and placement) of fertilisers to promote competitiveness and growth of indigenous species ahead of weeds.
- Minimising pH changes to maintain pH <5 in the root zones, e.g. via controlled placement of any alkaline materials.

These matters, including Priority Weeds, are discussed further in Sections 5.4 and 5.5 of the Rehabilitation Management Plan (BPCP-ENV-PLN-002).

3.4 Weed control

3.4.1 Priority Weed - Progressive Reduction

The aim for Priority Weed - Progressive Reduction weeds ('PR weeds') is to progressively reduce the spatial extent and biomass and therefore the severity of impact of the weeds in this category. Reducing the extent includes both preventing the movement of propagules to new sites via human activity (addressed in Sections 3.2 and 3.3) or via natural dispersal, as well as reducing the extent and biomass of infestations within the existing range.

In order to achieve this outcome, the extent of PR weeds will be regularly monitored (as set out in Section 4.0), accompanied by surveillance of areas currently free of PR weeds to confirm no incursions have occurred and concurrently eliminate any incursions identified. Management of PR weeds will be prioritised as follows:

1. Control in stockpiles to be used for rehabilitation;
2. Control along potential dispersal corridors such as roads, tracks, sediment fences and waterways, particularly where these lead to weed free areas.
3. Establishment of natural barrier or engineering barriers to weed spread (e.g., use of board walks as at the North Augustus Snail Area, intact vegetation with no bare ground, use of rock).
4. Prevention of new populations establishing via control of any known new and satellite infestations.
5. Control at the edges of the main populations within the WMA (or on adjoining land if landowner agreement can be reached) to reduce overall extent and limit spread. This will be particularly effective if it is frequent enough to prevent flower and seed production.
6. Control of large and primary infestations. Again, this will be most effective if timed to prevent seeding and reduce density concurrently.

Control of PR weeds using the methods described in Table 5 should particularly target satellite/new infestations, the edges of existing infestations and dispersal pathways such as roads, aerial ropeway and

waterways, especially those near vulnerable areas such as wetlands or low growing vegetation. For species with water dispersed seeds (e.g. heath rush) control should begin at the top of the catchment.

Specific PR Weeds are discussed below.

Gorse

Gorse is a nitrogen fixer and is flammable, so has the potential to irreversibly change undisturbed, sensitive ecosystems that are unique to the Buller Plateaux. Gorse is common at disturbed sites and along roadsides. Despite previous control reducing the impact of gorse across the plateaux, total eradication remains unrealistic. For this reason, control is focused on minimising impacts of gorse and limiting further spread. This will be achieved through annual control of known gorse infestations prior to seeding and surveillance for plants in new areas. Specific control methods are set out in Table 4.

Exotic *Juncus* spp.

Heath rush is widespread across the plateaux and readily invades low and open vegetation types. Simcock et al. (2024) trialled methods for removing heath rush and recommended herbicide application followed by planting with taller native plants to occupy space and prevent reinvasion via shading. For areas with naturally shorter, sparser vegetation, Simcock et al. (2024) recommended prolonged, targeted herbicide applications until heath rush is removed from the seed bank, which may be up to 60 years (Moore 1949, in Simcock et al. 2024).

Juncus canadensis is present in wetlands, including VDT storage areas and natural red tussockland near Cypress Mining Area. *Juncus lomatophyllus* is also present in damp areas throughout the plateaux, although to a lesser extent than *J. canadensis*. Spot spraying and weed wiping using Glyphosate has been effective at controlling *J. canadensis* (Ecological Solutions Limited 2025), with weed wiping having minimal effect on surrounding native vegetation. These methods will continue to be applied to control *J. canadensis* and *J. lomatophyllus* where necessary.

Control of specific exotic *Juncus* species infestations will be undertaken annually between spring and autumn, or when seed/flower heads are visible since this makes identification easier. Some Juncus are not considered a threat and will not be specifically controlled (see Attachment 1).

Scotch broom

Scotch broom is one of largest threats to indigenous vegetation within the WMA. Similar to gorse, it is a nitrogen fixer, is flammable and has long-lived seeds, so has the potential to change undisturbed, sensitive ecosystems. Progressive reduction will be achieved via regular control and twice annual surveillance for new infestations, along with annual control of existing sites. Methods of control are summarised in

Table 4.

Pampas

Pampas has been recorded from roadsides on the Denniston Plateau and around Stockton Mine. Pampas produces abundant seed which is wind dispersed and favours bare ground for germination. It is also superficially similar to the native toetoe (*Austroderia richardii*), particularly when not flowering. Progressive reduction will be achieved via regular control and annual surveillance for new infestations. Specific methods for control are found in

Table 4.

Spanish heath

Spanish heath has been recorded along the access to Blackburn Pākihi from Mt William North and in Blackburn Pākihi itself. This weed readily colonises open ground, is tolerant of acidic, low fertility soils and can form dense stands that out-compete native plants. It also produces abundant, moderately long-lived seeds that are dispersed via wind, water and soil. Progressive reduction will be achieved via regular control and annual surveillance for new infestations.

Bryophyte - Weasel moss

The adventive weasel moss, *Sphagnum subnitens* was first recorded on the Buller Plateaux within red tussock grassland bog at Cypress valley by Glenny (1999). Weasel moss appears to replace and outcompete the native *Sphagnum cristatum* on disturbed sites (Glenny and Fife 2001). Recently recorded from a planted mixed shrubland around a constructed tarn on the Stockton Plateau (Ecological Solutions Limited 2026c). Habitats include marsh, fens, flushes, pākihi, moist rock ledges and wet shrubland/forest (Blockeel et al. 2014).

Weasel moss is probably more widespread than records indicate because identification in the field is difficult, particularly since colour and form vary considerably in response to open and shaded sites (The British Bryological Society 2021). Progressive reduction will be achieved via regular control and annual surveillance for new infestations.

Bryophyte - Marchantia

The adventive liverwort, *Marchantia polymorpha* subsp. *polymorpha* is a common greenhouse weed which was likely imported to the plateaux on soil attached to nursery raised plants used for rehabilitation. It has been reported from at least one VDT site with high-quality mānuka (*Leptospermum scoparium*) shrubland/heathland (under a rock overhang, in low light conditions), and a second rehabilitated site (mixed shrubland around a constructed tarn) approximately 866 m asl at the Stockton Plateau (Ecological Solutions Limited 2026c, Terry 2017), and has also been recorded on the Denniston Plateau (c. 640 m asl.) (S Gorinski pers. obs. June 2025). This species is typically associated with riparian habitat, including upland lake margins, but apparently avoids strongly acid conditions (Blockeel et al. 2014). Identification in the field would require species familiarity, as *Marchantia polymorpha* can look similar to the native *Marchantia berteroana* which grows in similar habitat. Progressive reduction will be achieved via regular control and annual surveillance for new infestations.

Table 5. Weed control methods for Priority Weed - Progressive Reduction weeds.

Species	Control Method
Gorse	Hand pull: suitable for seedlings occurring in small numbers
	Herbicide spray: suitable for most sites (spring-summer): triclopyr 600 EC (20ml/10L) or triclopyr 300 EC (40ml/10L). (autumn-winter): metsulfuron-methyl 600g/kg (5g/10L + penetrant (knapsack) or 20g/100L + penetrant (spray gun) or a product containing 100g picloram+300g triclopyr/L (250ml/100L (spray gun))
	Cut and paste: suitable for small infestations or at particularly sensitive sites glyphosate (250ml/L) or metsulfuron-methyl 600g/kg (2g/L) or triclopyr 600 EC (250ml/L) or a product containing 100g picloram+300g triclopyr/L (100ml/L) or picloram gel.
Juncus species (heath rush, *J. canadensis, J. articulatus, J. lomatophyllus*)	Herbicide: Application of glyphosate at rates of between 1.8g/l and 5.4g/l (high rates required for heath rush). A suitable penetrant should also be included in the herbicide mix.

	Planting: Interplant with native species that will reach >70cm tall to develop dense cover to outcompete and shade regenerating rushes. Follow up fertilizer applications may be required to ensure plants grow to required height. In cases where planting of taller natives is inappropriate, continued application of herbicide is recommended.
Scotch broom	Stump swab: Suitable for large individual plants (all year round): triclopyr 600 EC (50ml/L) or triclopyr 120g/L (250ml/L) or metsulfuron-methyl 600g/kg (5g/L).
	Herbicide spray: Suitable for larger sites (spring-summer): metsulfuron-methyl 600g/kg (7.5g/15L + penetrant (knapsack) or 35g/100L + penetrant (spray gun) or a product containing 100g picloram+300g triclopyr/L (90ml/15L (knapsack) or 200-300ml/100L + penetrant (spraygun)).
Spanish heath (*Erica lusitanica*)	Dig or pull-out small plants. For larger infestations, foliar spray with metsulfuron-methyl (1g metsulfuron-methyl per 1 L of water) or 2,4-D ester (during active spring growth).
Weasel moss (*Sphagnum subnitens*)	Isolated occurrences and/or small localised infestations will be hand pulled, bagged and disposed of off site.
Marchantia (*Marchantia polymorpha*)	Isolated occurrences and/or small localised infestations will be hand pulled, bagged and disposed of off site.

3.4.2 Priority Weed - Eradication and Surveillance

The aim for Priority Weed – Eradication and Surveillance (or "ES weeds") is to eradicate them by 2035 and prevent their return.

Eradication will be the priority for any high risk weed species present within the WMA, except where eradication is not currently feasible. Early eradication is cost effective and results in the best ecological outcome. It also reduces the risk of non-target impacts of control methods and the risk of permanent establishment.

Attempts should be made to eradicate any new individuals or populations from the WMA of the weeds listed as Environmental Weeds or pest plants in the RPPMP, except for species identified as 'low risk weeds' listed in Attachment 2. Eradication of new arrivals determined to be high risk following the methods set out in Section 2.6 should also be considered.

All known locations of ES weeds will be recorded by GPS before application of the appropriate treatment measure. All known locations of ES weeds listed in Table 6 below should be treated for control before 2030. Recorded sites should then be checked at least twice annually, for regeneration from seed, stumps or fragments. If any living plant material is discovered, then control will be initiated as soon as possible. Locations of successful weed eliminations should be recorded for follow up control to prevent reestablishment as necessary. Follow-up visits within one year of control should be conducted to determine if eradication has been achieved. Control methods for ES weeds are set out in Table 6 below.

Table 6: Weed control methods for Priority Weed - Eradication and Surveillance.

Species	Control method
Azalea, Buddleia; butterfly bush, cotoneaster, Khasia berry, red escallonia, macrocarpa, English holly, Himalayan honeysuckle, English honeysuckle, Japanese honeysuckle, spiraea, day lily, tiger lily, ragwort	Hand pull: suitable for seedlings occurring in small numbers
	Herbicide spray: suitable for most sites (spring-summer): triclopyr 600 EC (20ml/10L) or triclopyr 300 EC (40ml/10L). (autumn-winter): metsulfuron-methyl 600g/kg (5g/10L + penetrant (knapsack) or 20g/100L + penetrant (spraygun) or a product containing 100g picloram+300g triclopyr/L (250ml/100L (spraygun))
	Herbicide stump swab: glyphosate (250ml/L) or metsulfuron-methyl 600g/kg (2g/L) or triclopyr 600 EC (250ml/L) or a product containing 100g picloram+300g triclopyr/L (100ml/L) or picloram gel.
	Herbicide frill: Suitable for individual large plants. With a sharp chisel or axe, make a deep cut into the sapwood at regular intervals around the base of the tree, taking care not to ring-bark the plant. Immediately saturate each cut with a product containing 100g picloram+300g triclopyr/L (undiluted)
Asiatic knotweed	Dig out small patches (all year round): Dispose of at refuse transfer station or burn.
	Weed mat: leave for 6 months minimum. Dig or spray surviving shoots.
Asiatic knotweed Contorta pine, mountain pine, radiata pine, cherry laurel, rhododendron,	Stump swab (all year round): glyphosate (250ml/L) or metsulfuron-methyl 600g/kg (5g/L) or triclopyr 600 EC (200ml/L).
	Stem injection (all year round): 5ml metsulfuron-methyl 600g/kg (50g/L) per stem.

	Spray (spring-autumn): glyphosate (200ml/10L) or metsulfuron-methyl 600g/kg (5g/L) or a product containing 100g picloram+300g triclopyr/L (6ml/L) or triclopyr 600 EC (6ml/L). Add penetrant.
	Pull or dig out small plants (all year round).
	Fell at ground level (all year round). Check for branches below ground. Stems occasionally resprout, make sure there are no green needles below the cut.
Contorta pine, mountain pine, radiata pine, cherry laurel, rhododendron, Crack willow, grey willow	Stump swab: metsulfuron-methyl 600g/kg (1g/L) or a product containing 100g picloram+300g triclopyr/L (50ml/L) or triclopyr 600 EC (50ml/L) or picloram gel.
	Bore and fill (all year round): bore 1 hole per 100mm of trunk, add 2ml metsulfuron-methyl 600g/kg (20g/L) or 10ml of a product containing 100g picloram+300g triclopyr/L (undiluted) per hole.
	Cut and squirt (all year round): make 1 cut per 150mm of trunk, add 1g metsulfuron-methyl 600g/kg or 10ml of a product containing 100g picloram+300g triclopyr/L (undiluted) per cut.
	Frilling (all year round): metsulfuron-methyl 600g/kg (1g/L) or a product containing 100g picloram+300g triclopyr/L (50ml/L) or triclopyr 600 EC (50ml/L).
	Spray (summer): glyphosate (100ml/10L) or metsulfuron-methyl 600g/kg (5g/10L) or a product containing 100g picloram+300g triclopyr/L (30ml/10L).
	Cut and squirt (summer-autumn) or bore and fill: Make 1 cut or hole every 100 mm around the trunk and saturate each cut or hole with 10ml glyphosate (undiluted).
	Frilling (summer-autumn): glyphosate (100ml/L).
Crack willow, grey willow Flowering currant Wild ginger	Spray (full leaf stage only): glyphosate (12.5ml/L + penetrant, total coverage needed) or metsulfuron-methyl 600 g/kg (5g/10L in December).
	Dig out, taking care to remove root crowns.
	Cut down and paint stump (all year round): cut above pink 'collar' at base and apply picloram gel or glyphosate (250ml/L) or metsulfuron-methyl 600g/kg (1g /L) or metsulferon gel. Leave stems and leaves on site to rot down.
Flowering currant	Dig or pull out small plants (all year round). Don't compost, leave on site to rot down or hang rhizomes in trees, as they survive indefinitely. Dispose of rhizomes at a refuse transfer station or by drying out and burning.
Wild ginger Banana passionfruit	Spray (all year round): metsulfuron-methyl 600g/kg (5g/10L knapsack). Add penetrant in winter. For dense patches keep spray away from roots of vulnerable plants. Don't replant sprayed sites for 6 months. If fruiting, remove fruit to bags and take offsite to waste facility; snap off flowers
	Pull roots up (all year round): Cut off above ground or tie stems in air to prevent them forming roots on contact with soil. If plants are isolated, remove the entire plant and dispose of off-site.
	Cut trunk and paint stump (all year round): cut trunk near to the ground, and swab freshly cut stump with metsulfuron-methyl 600g/kg (1g/L) or a product containing 100g picloram+300g triclopyr/L (100ml/L) or triclopyr 600g/L (100ml/L) or a product containing 200g 2,4-D+100g dicamba/L (200ml/L).
Bamboo Ivy	Mulch stems and leaves. Allow to resprout, and spray the new growth with amitrole (333ml/L + penetrant) or 520g/L haloxyfop-P-methyl (150ml/10L + penetrant) before the regrowth reaches 60 cm tall. Again, allow to resprout and spray the regrowth. Usually 4-5 applications are required before it stops resprouting.

	Stump swab (all year round): metsulfuron-methyl 600g/kg (5g /L). Best for aerial vines. Use a paint brush to liberally cover the cut surfaces within 15 minutes of cutting and all stem bases where exposed.
Bamboo	Spray (summer): glyphosate (10ml/L) or metsulfuron-methyl 600g/kg (5g/10L (knapsack) or 40g/100L (spraygun)) or a product containing 100g picloram+300g triclopyr/L (60ml/10L). Add penetrant to all mixes. Do not use for ivy growing against trees.
Montbretia	Dig out very small sites. Usually futile with larger infestations as corms resprout. Dispose of corms at a refuse transfer station, or by burning or by deep burial.
	Spray (full leaf stage): glyphosate (10ml/L) + metsulfuron-methyl 600g/kg (4g/10L + penetrant). Establish native plants that will grow to >1.5 m tall to smother.

3.4.3 Low Risk Weeds

Many of the weeds present on the Plateaux are considered to be low risk ("LR weeds"), due to their limited dispersal capability and/or poor competitiveness with existing native vegetation. LR weeds are mostly herbs and grasses, some of which are, or have been, used as part of site rehabilitation to produce vegetated surfaces and limit sediment mobilisation. The distribution of LR weeds is mostly limited to previously disturbed areas where they may be transient and are unlikely to displace indigenous plants in the medium – long term, although when present they may discourage indigenous regeneration. These species, listed in Attachment 2, generally do not require active management, except to prevent spread and where required to release planted or regenerating indigenous plants. Some LR weeds are native plants which are not part of natural ecosystems on the plateaux. These include karamū (*Coprosma robusta*), lemonwood (*Pittosporum eugenioides*), kōhūhū (*Pittosporum tenuifolium*) and tutu (*Coriaria arborea*).

3.4.4 Rehabilitated sites

At all locations the following actions will be undertaken to assist in reducing the transfer of weeds to rehabilitated sites:

- Soil stockpiles known or thought to be infested with Progressive Reduction (PR) or Eradication and Surveillance (ES) weeds will be maintained separately from "weed free" stockpiles (which may contain LR weeds) and clearly signposted as such in order to reduce the potential for transfer of problematic weeds around the site. Weed infested material should not be transferred to areas that are intended to be maintained weed-free.
- Regular (twice annually) control of weedy stockpile areas, using methods most suited to the species and density of weeds present in order to prevent spread of weeds from storage sites.
- Stockpiled material containing or thought to contain seeds of gorse, broom and heath rush in the first instance should be used where the vegetation outcome is expected to be tall forest as set out in Section 5.3 of the Rehabilitation Management Plan (BPCP-ENV-PLN-002).
- Soils and vegetation material containing LR weeds will only be used in rehabilitation once weeds have been controlled or eradicated where possible.

- As far as is practicable, disturbance should be limited to areas that are strictly necessary for current mining, to allow for progressive staged rehabilitation where mining activity progresses. This will help ecological corridors to develop and will facilitate the early re-establishment of vegetation, minimise weed contamination and will support mine rehabilitation in the long term.
- Where previously weed infested soil must be used as topsoil in rehabilitation, it will be used in the first instance at:
    - Easily accessible locations to allow on-going weed control AND separated from waterways by sufficient distance, dependent on the slope and landform, so that the soils are far enough away from the watercourse to ensure that seeds are unlikely to be eroded/washed into stream and downstream area. A minimum separation of 20m will be applied on flat ground.
    - Areas destined to be rehabilitated as forest, where natural vegetation will eventually overtop and outcompete the weeds; or
    - Locations which are not adjacent to most vulnerable and highly vulnerable habitats.

3.5 Best practice herbicide use

Any control efforts requiring agrichemical application will be completed by a GrowSafe certified contractor and wearing appropriate PPE. Appropriate precautions will be undertaken to protect non-target plants, animals, surrounding environments and waterways.

All agrichemical use including (but not limited to) transport, storage, disposal, training, notification of use, use near waterways and application shall comply with the industry standard NZS 8409:2004.

Herbicides will be applied during periods of active growth. Weather conditions at the time of application will be suitable for herbicide application (i.e., not raining and little to no wind in order to minimise spray drift). If weather conditions are not suitable, spraying will be completed at an alternative time. Spray marker dye will be added to all spray solutions to ensure full coverage of all weed infestations.

It is important that flexibility is retained in relation to the use of weed control methods, and ensuring best practice methods with minimal adverse environmental effects are adopted to achieve the objectives of this plan.

4.0 Monitoring and Surveillance

4.1 Background

The goal of weed monitoring and surveillance is to keep current records of the location and extent of weed infestations, document progress in weed reduction, confirm control effectiveness and allow for early intervention when new species are detected within the WMA.

Whilst formal weed surveillance should be undertaken by suitably qualified personnel who can identify new weeds, general weed surveillance is the responsibility of everyone on site. As per the current process for Cypress Mining Area, BRL Operations personnel are to monitor and report weed incursions in their respective work areas via the ‘Hazard Report Form’ which are then logged in an online database

(INX) and assigned to the Environment and Community Team for follow-up. BRL staff and contractors perform regular monthly weed control in these areas and perform inspection of rehabilitation areas.

Regular monitoring and surveillance will be used to:

- Inform ongoing management;
- Allow for early intervention when new species arrive on the plateaux; and
- Track progress towards achieving the goals and objectives of this plan.

Monitoring and surveillance are two different actions with different intents as described below:

- Monitoring describes repeated surveys of known weeds at prescribed intervals. Monitoring is crucial to inform responsive and timely management and ensure efficient use of resources.
- Surveillance enables early detection and therefore eradication of new weed infestations. Ongoing surveillance for new weed populations including via both active surveillance (systematic survey of a site for new infestations) and passive surveillance (reporting of detection of weeds while undertaking other tasks) will be required.

4.2 Baseline Survey

Prior to commencement of new mining activities in a particular Project sub-area, a baseline weed survey will be undertaken in that area which will determine the baseline weed locations and densities, confirm high priority units and inform management actions. The large size of the WMA makes it impractical to survey and map in one effort; therefore, sub-sampling of locations and aerial photography will be used. The baseline survey will also be informed by existing weed locations across the WMA using both internal (BRL) and external records (e.g., public databases such as iNaturalist). The baseline survey will exclude existing rehabilitated and mined areas at Stockton and Cypress mines as these areas already undergo regular weed management and monitoring.

The baseline survey will begin with a reconnaissance survey across parts of the WMA accessible by vehicle that have not recently (i.e., in the past year) been surveyed and mapped as part of current weed campaigns. This survey will record the locations of main and satellite weed infestations of PR and ES species (using a GPS) within or adjacent to high priority areas that are able to be accessed by vehicle. These locations may include, but are not limited, to:

- 2-5 Haul Road, Cypress Haul Road and Fly Creek Road (Stockton Plateau)
- Cedar Creek Road (Waimangaroa valley)
- Whareatea Mine Road, Mt Rochfort Road and Burnett's Face Road (Denniston Plateau)

The second stage of the baseline survey will involve ground-based mapping and establishment of permanent drone photo points within high priority units informed partly by the reconnaissance survey. Within high priority units, ground-based mapping of PR and ES weeds (i.e., species, GPS location and extent) will be undertaken in areas mapped as 'priority areas.' Residual effects management sites and Project sub-areas will be prioritised over other areas of the WMA. Drone and other photo points should be established where maximum coverage of weed infestations can be captured and where access is

practicable. The purpose of drone photography and other photo points is to estimate the extent of weed infestations in areas vulnerable to weed invasion and to have a long-term measurable record of weed presence and extent.

The third stage of the baseline survey will target medium priority units and involve the establishment of transects within and adjacent to priority areas. Location and extent of PR and ES weeds encountered in transect surveys will be recorded. For known locations of PR weeds that are within low priority units, these shall be visited and the extent recorded as part of the baseline survey.

Baseline surveying will be undertaken during flowering season (spring-summer) at a time when gorse and broom are most visible.

4.3 5-yearly Surveys

The baseline survey method described above will be repeated once every five years during spring when gorse and broom are flowering and therefore most visible. The purpose of the 5-yearly survey is to:

- Identify any new weed species and infestations;
- Compare the location and extent of weeds with baseline and previous surveys; and
- Inform a review of the priority locations and management approaches/WMP.

After five years of management, the priority classification of 1km grids may have changed, but the survey treatments for priority units as described above should be used, meaning additional drone and other photo points may need to be established and incorporated into the regular reviews of this management plan.

4.4 Annual surveys

4.4.1 High Priority Units

Following the baseline survey, high priority units (as described in Section 2.5 and mapped in Figure 11) will be surveyed annually during spring or autumn. This annual survey aims to identify any new infestations or weed species so that their control can be prioritised as appropriate. Photo points and ground-based mapping as described in Section 4.2 will be used to monitor these areas. When a 5-yearly survey coincides with a high priority unit annual survey, only one survey will be undertaken within high priority units.

4.4.2 Project sub-area Weed Surveillance

Surveillance of the roads and Project sub-areas that are being actively mined will be undertaken annually. The aim of this surveillance is to identify and record the presence of any new weed species or infestations that may arise from dispersal by machinery or people with immediate removal of any weeds found. Collated weed control records and reports from road users will help to inform this monitoring.

4.5 Weed Surveys at Rehabilitated Sites

Walk-through weed surveys will be undertaken annually to confirm weed control outcomes and identify weed presence and extent at rehabilitated sites within the BPCP. The following information recorded during each survey:

- Route taken (or survey area boundary) and method used;
- All weed species observed, including (where practicable) indicative locations and extent;
- Any management recommendations (including any additional control required).

Sites that are the most vulnerable to weeds (i.e., those with a high proportion of bare ground, close to disturbance, with low and sparse vegetation and where weeds have been found in previous years) will be targeted for walk through surveys.

Following the completion of rehabilitation planting within any rehabilitated area, targeted weed assessments must be undertaken to confirm compliance with the rehabilitation area priority weed performance threshold of 5% cover. The targeted weed assessment will be undertaken at the following times after rehabilitation planting, unless longer monitoring is required to achieve the performance threshold:

i. *6 months;*
ii. *1 year;*
iii. *2 years; and*
iv. *5 years*

Each targeted weed assessment will be incorporated into permanent plot monitoring where applicable. The specific monitoring methods are described further in Section 11.2 of the Rehabilitation Management Plan (BPCP-ENV-PLN-002), or will be undertaken using any other equivalent method that supersedes this. The assessment will determine whether the priority weed species cover within the rehabilitated area is below the performance threshold. If the assessment identifies that the performance target is not being met, additional weed control must be implemented and follow-up monitoring applied, following Project Sub-Area activities and timeline as outlined in Section 5.0. The results of targeted weed assessments will be presented in the Annual Weed Management Monitoring Report as discussed in Section 6.2.

Vegetation at planted sites will be monitored using at least 27 10 x 10m RECCE plots as described in Section 11.2.1 of the Rehabilitation Management Plan (BPCP-ENV-PLN-002). Three permanent plots within each of the nine planted rehabilitation types will be established. Under the Rehabilitation Management Plan, monitoring of the plots in planted areas will occur every two years for the first six years, then every five years for the life of the consent. Where rehabilitation surveys coincide on the same year as weed surveys, these can be done as one single survey.

The plots will be established as soon as possible within six months after planting so that the 6-month targeted weed survey can be carried out. Where the rehabilitation survey does not coincide with weed

surveys, the targeted weed survey will involve estimating the percentage cover of each weed species in each height tier within each plot.

To assess weeds against performance criteria, the average percentage cover of priority weed species across all plots will be calculated at each of the monitoring intervals described above.

Permanent 10 x 10 m plots (three per vegetation type) will be established in areas rehabilitated by VDT. Weed species and their percentage cover for each height tier will be assessed for each plot at the time intervals described above.

4.6 Record Keeping

Record keeping within each weed control season should include:

- Maps showing where weed control has been undertaken within each weed control season in each 1km grid square will be produced seasonally (when weed control occurs) to assist with future planning and inform annual reporting.
- The location and extent of weeds, species present, methods of control used and personnel.
- Spray diaries for all herbicide spraying undertaken which refer to the map described above and provide details as to the date, location, target species, product (active ingredient), application method, quantity used, weather conditions where relevant to drift risk, and the person undertaking the spraying. This information will be recorded daily when weed control occurs.
- The use and spread of exotic species (such as browntop) for stabilisation of rehabilitated and disturbed areas.
- Incidental reports of weed incursions and/or infestations by staff and contractors will also be recorded as required. BRL's Environmental Manager will maintain a current set of .GPX files based on the most recent monitoring to inform the vulnerability of particular locations of interest. These records will be useful to inform weed control requirements for post-closure maintenance.

Records must be retained for at least 7 years.

4.7 Adaptive management framework

If monitoring results for rehabilitated areas and for high and medium priority weed management units indicate that these are not on a trajectory to achieve performance targets for the next 5-year survey, then weed control methods, including frequency and timing of control, should be re-assessed and changed as necessary. Where an alternative method that is not described in this plan would achieve better or equal outcomes with fewer adverse environmental effects, these should be explored in consultation with experienced ecologists and weed control staff.

5.0 Frequency of Monitoring, Surveillance and Control

Table 7 summarises the nature, frequency and timing of weed monitoring, surveillance and control within the WMA. Following the first round of weed control, the frequency will be dictated by the success of previous control activities and the outcome of recent monitoring.

Table 7: Timing of monitoring and surveillance activities for the WMA.

Monitoring and surveillance activity	Timing
Baseline survey Staged baseline survey of WMA to identify areas with weed infestations using a combination of aerial and ground surveys, prioritising high and medium priority units.	Prior to commencement of mining in the Project sub-areas. To be undertaken in spring to capture flowering weeds. Due to the size of the WMA, a staged approach will be taken whereby high and medium priority units within a Project sub-area are surveyed first, and low priority units in the subsequent year(s).
WMA survey Aerial and ground surveys of the high and medium priority units within the WMA to identify new weed species and locations and confirm progress	5-yearly using the baseline survey method.
Project sub-area survey Collation and summary of the data collected from Project sub-areas (including rehabilitated areas) and along mine roads for the presence of new species or infestations. This information will be used to produce a detailed map showing where weed control has been undertaken assist with future planning	Annual compilation of monthly control records including: • rehabilitation monitoring (as set out in Section 10.2 of the Rehabilitation Management Plan, BPCP-ENV-PLN-002); • Spray diaries (and any other control efforts); • Biosecurity monitoring (as set out in Section 3.4.2 of the Biosecurity Management Plan, BPCP-ENV-PLN-007); • Project sub-area monitoring This will include location, extent, method, timing and personnel. This information will be compared with previous annual reports to identify new weed risks (locations and species) and track progress.
Targeted weed assessment in areas rehabilitated by planting	6 months, 1 year, 2 years and 5 years, unless longer monitoring is required to achieve the performance threshold. Can be done in conjunction with rehabilitation plot-based surveys on years where these coincide.
Monitor the use and spread of exotic species for stabilisation of rehabilitated and disturbed areas as set out in Section 3.3.2 of the Biosecurity Management Plan (BPCP-ENV-PLN-007)	As required

Incidental reports (i.e., Hazard Reports) of weed incursions and/or infestations as set in Section 3.4 of the Biosecurity Management Plan (BPCP-ENV-PLN-007) and Section 10.2 of the Rehabilitation Management Plan (BPCP-ENV-PLN-002)	As required
Control at locations containing Progressive Reduction weeds	At least once annually in high priority units, and at least once every five years in other areas unless monitoring shows that progressive reduction is not being achieved or more aggressive control is required. Where PR weeds are detected during monitoring and surveillance in areas that are not scheduled for control within the next 12 months, the risk of spread will be assessed and control initiated earlier depending on the location and priority criteria as outlined in Section 3.4.1.
Control of Eradication and Surveillance weeds	At least once annually at important areas for biosecurity as set out above and in Section 3.4.2 of the Biosecurity Management Plan (BPCP-ENV-PLN-007).

6.0 Reporting

6.1 Internal Reporting

Weed control efforts and the results of weed monitoring within the WMA will be compiled and reported to internal management on a 12-monthly basis within the Environmental Management System (EMS) Management Review Process. The Environmental Manager will be responsible for scheduling this review and presenting performance against the objectives of weed management.

All potential and actual non-compliance with this WMP identified by site personnel during site inspections or monitoring activities are to be rectified in accordance with the requirements of this WMP, and will align with the Environmental Effects Notification Procedure (STO-ENV-PRO-011). This system keeps track of non-compliances, corrective actions, responsibilities, planned and actual completion dates. Community complaints will be recorded within the Community Enquiries and Concerns and Responses Procedure (STO-ENV-PRO-007).

6.2 Annual Weed Management Monitoring Report

BRL will prepare and submit an Annual Weed Management Monitoring Report to regulators and iwi which documents the outcomes of weed surveillance, control and monitoring undertaken within the WMA during the reporting year (preceding 12 months).

As appropriate, weed management activities and monitoring results will be documented and reported in the Annual Weed Management Monitoring Report. At the time of submitting the Annual Weed Management Monitoring Report, BRL shall advise of any material changes that it intends to initiate in response to the outcome(s) of previous monitoring and the timeframe for such material change.

The Annual Weed Management Monitoring Report shall include (but not be limited to):

- A description of all weed surveillance, control and monitoring undertaken during the reporting year (including methods, locations/areas, dates, and frequency), including activities undertaken to meet Conditions WEM6 to WEM19;
- Maps of areas targeted for weed control, surveillance and monitoring during the reporting year, and maps showing locations where weed control was undertaken;
- A summary of the extent and distribution of weed infestations at the time of reporting, compared to the previous year (or compared to baseline survey results for the first year of reporting), with results differentiated between PR Weeds and ES Weeds;
- A description of the weed control methods used (including, where herbicides are used, the active ingredient, application method, and indicative application rates, and any manual methods used);
- A summary of any biosecurity measures implemented to prevent the introduction and spread of weeds (including location and type of measures), and any identified non-compliances and corrective actions;
- An assessment of weed status at exploration drill sites (where relevant);
- An evaluation of progress against the relevant targets and thresholds in the WdMP, including progress against rolling five-year progressive reduction targets for PR Weeds within priority areas; and
- Any recommended changes to the WMP or implementation methods to improve effectiveness, including proposed timeframes for implementation.

The use, handling, storage and transportation of hazardous substances for weed control will be reported as set out in the Hazardous Substances Management Plan (BPCP-ENV-PLN-014).

7.0 Roles, Responsibilities, and Training

BRL is committed to continual training and awareness of all staff, employees, and contractors. Training and awareness procedures are an integral part of ensuring the full implementation of the Buller Plateaux Weed Management Plan across all aspects of all projects. Effective and regular communication at all levels reinforces the message that ecology management issues are taken seriously and that the Plan has the active support of the principal contractor.

Role	Weed Management Responsibility
All BRL Employees	Report priority weeds. Prevent spread through adherence to biosecurity measures.
BRL Environmental Manager	Manage independent consultants and pest and weed contractors. Ensure the level of biosecurity risk that vehicles and machinery arriving to site are assessed and appropriate action taken in accordance with this WMP and the BMP (e.g., wash vehicle) Allocate tasks across personnel. Refer Section 8 in STO-ENV-PLN-014 Weed Control. Maintain records of weed control activities and extent of PR weed targets. Report weeds. Promote adherence to biosecurity measures. Maintain a current set of .GPX shape files based on the most recent monitoring to inform the vulnerability of particular locations of interest. Increase weed awareness across the workforce via training and supplying information such as posters and signage in workspaces. External reporting Review 1km grid units ranked by priority every 5 years Review outcome of 5-yearly surveys and update WMP as required.
Independent consultants	Monitor and review effectiveness of strategy. Report priority weeds. Prevent spread through adherence to biosecurity measures.
Contractors	Implement weed control activities. Report priority weeds. Prevent spread through adherence to biosecurity measures.

8.0 Management Plan Approval and Revision

8.1 Change Register

This Wed Management Plan is issued, revised, and amended under authorisation of the CEO.

A copy will be stored electronically with access available to all workers. The signed hard copy will be maintained in the Wellington document library.

Reasons for making changes will be documented and recorded in the document management table, refer to Table 8. A copy of the original document and subsequent versions will be kept for records and marked as obsolete. Each new/updated version will be issued with a version number and date to eliminate obsolete documentation being used.

Table 8: Document management

Document Management:			
Regulatory Approvals Authorities:			
Document Owner:			
Document Owner Name: **GM HSEC Approval Signature:** **Date:**			
Document Approver:			
CEO Name: **CEO Signature:** **Date Approved:**			
Revision History:			
Date	**Version No.**	**Lead Author**	**Contributing Authors**
Version No.:	**Detail / Changes:**		
Next Planned Review:			

9.0 References

Blockeel, T.L., Bosanquet, S.D.S. and Preston, C. (Eds.). 2014. Atlas of British & Irish Bryophytes. Volume 1. Pub. Pisces Publications.

BPCP-ENV-PLN-002. Buller Plateaux Continuation Project: Rehabilitation Management Plan. Unpublished report prepared for Bathurst Resources Limited by Ecological Solutions Limited, Kāeo, Northland. August 2026.

BPCP-ENV-PLN-007. Buller Plateaux Continuation Project: Biosecurity Management Plan. Unpublished report prepared for Bathurst Resources Limited by Ecological Solutions Limited, Kāeo, Northland. August 2026.

BPBP-ENV-PLN-013. Buller Plateaux Continuation Project: Erosion and Sediment Control Plan for Land Disturbance activities.

BPCP-ENV-PLN-014. Buller Plateaux Continuation Project: Hazardous Substances Management Plan.

Department of Conservation. 2020. Heaphy and Denniston Biodiversity Projects Annual Report 1 July 2019 – 30 June 2020. Department of Conservation, Westport, New Zealand.

Ecological Solutions Limited. 2025. Cypress Mining Area VDT Storage Transects Annual Monitoring Report 2024. Unpublished report prepared for Bathurst Resources Limited by Ecological Solutions Limited, Kāeo, Northland. 39 pages.

Ecological Solutions Limited. 2026a. Buller Plateaux Vegetation Mapping. Unpublished report prepared for Bathurst Resources Limited by Ecological Solutions Limited, Kāeo, Northland. January 2026. 65 pages + appendices.

Ecological Solutions Limited. 2026b. Buller Plateaux Contextual Study. Unpublished report prepared for Bathurst Resources Limited by Ecological Solutions Limited, Kāeo, Northland. August 2026. 101 pages + appendices.

Ecological Solutions Limited. 2026c. Assessment of Rehabilitation Outcomes for Stockton Mine. Unpublished report prepared for Bathurst Resources Limited by Ecological Solutions Limited, Kāeo, Northland. April 2026. 82 pages + appendices.

Galappaththi, H.S.S.D., de Silva, W.A.P.P., Clavijo Mccormick, A. 2023. A mini-review on the impact of common gorse in its introduced ranges. Tropical Ecology 64, 1–25. https://doi.org/10.1007/s42965-022-00239-9.

Glenny, D. 1999. Bryophyte survey at Stockton Plateau: Happy Valley tussock-land and surrounding areas. Landcare Research Contract Report LC9899/050. Prepared for Solid Energy Ltd.

Glenny, D. and Fife, A.J. 2001. Bryophyte survey at Te Kuha Ridge. Landcare Research Contract Report LC0001/82. Prepared for Michell Partnerships Ltd.

Gruner I. 2013. Department of Conservation Denniston Plateau Biodiversity Management Plan 2013-2063. Internal Department of Conservation Report. DOCDM-1240192.

McAlpine, K.G and Howell, C.J. 2024. List of environmental weeds in New Zealand 2024. Science for Conservation 340. Department of Conservation, Wellington. 37 p.

Owen, S.J. 1998. Department of Conservation strategic plan for managing invasive weeds. Department of Conservation, Wellington. 86p.

Simcock, R., Maguire, L., Thompson-Morrison, H. 2024. A single herbicide application to *Juncus squarrosus* delivers multi-year suppression, but elimination may require establishment of taller plants, Stockton Plateau, New Zealand [unpublished draft report].

Solid Energy New Zealand Limited. 2010. Cypress Mine Rehabilitation Plan. Unpublished Management Plan prepared for Solid Energy New Zealand Limited by Mitchell Partnerships Limited, Takapuna.

Stanley, M. C., Bassett, I. E., Stow, A., Maclean, N., Holwell, G. I. (2015). Environmental weeds in New Zealand: impacts and management. Austral Ark: The State of Wildlife in Australia and New Zealand, 134-61.

Terry, J.A. 2017. Bryophyte and lichen survey of rehabilitated sites at Stockton Coal Mine, near Westport, New Zealand. Unpublished report prepared by Jon Terry Ecology. Limited for Stevenson Group Limited, August 2017. Jon Terry Ecology Limited, Wellington. 16pp.

The British Bryological Society. 2021. Sphagnum subnitens: identification notes. https://www.britishbryologicalsociety.org.uk/learning/species-finder/sphagnum-subnitens-var-subnitens/. Accessed 23/12/25.

West Coast Regional Council (WCRC). 2018. West Coast Regional Pest Management Plan 2018-2028.

Williams, J. and Huggins, L. 2020. Denniston Plateau Weed Control Plan 2020–2025. Department of Conservation, Buller. 29pp.

Williams, P.A. and Newfield, M. 2002. A weed risk assessment system for new conservation weeds in New Zealand. Science for Conservation 209. 23 p.

Attachment 1: Relevant Consent Conditions

Conditions to be inserted upon issue of final decision.

Attachment 2: Low Risk weed species

Species	Common name	**Distribution**	**Previous status**[3]
TREES AND SHRUBS			
Thuja plicata	Western red cedar	Localised around old houses at Denniston township.	Eradication target (DPWCP)
DICOTYLEDON HERBS			
Capsella bursa-pastoris	Shepherd's purse	Occasional at Stockton mine at disturbed sites and around rehabilitated areas	
Cerastium fontanum	Mouse-ear chickweed	Occasional at Stockton mine at disturbed sites and around rehabilitated areas	
Cerastium glomeratum	Mouse-ear chickweed;	Occasional around disturbed areas at Denniston and Stockton	
Digitalis purpurea	Foxglove	Occasional around disturbed areas at Denniston and Stockton	Environmental Weed (McAlpine & Howell 2024)
Epilobium ciliatum	Tall willowherb	Occasional at disturbed areas at Denniston and Stockton	
Lotus pedunculatus	Birdsfoot trefoil; Lotus	Common around road and track edges and disturbed sites at Denniston and Stockton	
Medicago nigra	Bur medick	Recorded from Coalbrookdale area	
Mycelis muralis	Wall lettuce	Recorded from Coalbrookdale area	
Ornithopus perpusillus	Wild serradella;	Recorded from Waimangaroa Valley	
Ornithopus pinnatus	Yellow serradella	Recorded from Coalbrookdale area	
Persicaria maculosa	Willow weed	Recorded at Stockton mine (constructed tarn)	
Plantago lanceolata	Narrow-leaved plantain	Occasional around disturbed areas on Denniston Plateau	
Plantago major	Broad-leaved plantain	Occasional around disturbed areas on Denniston plateau	
Prunella vulgaris	Self-heal	Recorded from Coalbrookdale area	
Ranunculus flammula	Spearwort	Recorded from Waimangaroa Valley	
Ranunculus repens	Creeping buttercup	Occasional around disturbed areas at Denniston and Stockton	
Rumex acetosella	Sheep's sorrel	Recorded from Waimangaroa Valley	
Stellaria media	Chickweed	Occasional at Stockton mine at disturbed sites and around rehabilitated areas	
Trifolium species	Clover; Trefoil	Recorded from Waimangaroa Valley	
Trifolium pratense	Red clover	Recorded from Coalbrookdale area	
Trifolium repens	White clover	Occasional at Denniston at disturbed sites and around rehabilitated areas	
Vicia sativa	Narrow-leaved vetch	Recorded from Waimangaroa Valley	

[3] As defined by McAlpine & Howell 2024, West Coast Regional Pest Plant Management Plan 2018-2028, Denniston Plateau Weed Control Plan 2020-2025

DICOTYLEDON COMPOSITES			
Achillea millefolium	Common yarrow	Recorded from the Denniston plateau	
Anthemis cotula	Stinking mayweed	Occasional at Stockton mine at disturbed sites and around rehabilitated areas	
Cirsium vulgare	Scotch thistle; boar thistle	Recorded from disturbed area in Waimangaroa Valley	Environmental Weed (McAlpine & Howell 2024)
Gnaphalium species	Cudweed	Recorded from the Denniston plateau	
Crepis capillaris	Smooth hawksbeard	Recorded from Coalbrookdale area	
Gamochaeta americana		Recorded from Stockton Mine	
Gamochaeta subfalcata	Silky cudweed	Recorded from the Denniston Plateau	Environmental Weed (McAlpine & Howell 2024)
Hypochaeris radicata	Catsear; Flatweed; Spotted cat's-ear	Common throughout Denniston and Stockton at disturbed areas	
Leontodon saxatilis	Hawkbit	Common throughout Denniston and Stockton at disturbed areas	
Sonchus asper	Prickly sow thistle	Occasional throughout Denniston and Stockton at disturbed areas	
Sonchus oleraceus	Common sow thistle	Occasional throughout Denniston and Stockton at disturbed areas	
MONOCOTYLEDONS			
Agrostis capillaris	Browntop bent	Common throughout Denniston and Stockton at disturbed areas. Used in rehabilitation to secure soils.	Environmental Weed (McAlpine & Howell 2024)
Anthoxanthum odoratum	Sweet vernal	Common throughout Denniston and Stockton at disturbed areas	
Deschampsia flexuosa		Recorded from Coalbrookdale area	
Festuca rubra subsp. *commutata*	Chewing fescue	Recorded from Coalbrookdale area	
Glyceria declinata	Blue sweet grass; floating sweet grass	Recorded from Coalbrookdale area	Environmental Weed (McAlpine & Howell 2024)
Holcus mollis	Creeping fog; Creeping soft grass	Recorded from Coalbrookdale area	
Juncus acuminatus	Sharp-fruited rush	Recorded from Waimangaroa Valley	
Juncus articulatus	Jointed rush	Occasional throughout Denniston and Stockton at disturbed areas	Environmental Weed (McAlpine & Howell 2024)
Juncus bufonius	Toad rush	Occasional in constructed tarns on the Stockton Plateau	
Juncus effusus	Soft rush	Occasional throughout Denniston and Stockton at disturbed wet areas	
Juncus lomatophyllus	Broad leaved rush	Occasional in disturbed areas including damp swales on the Denniston plateau	
Juncus tenuis	Track rush	Occasional throughout Denniston and Stockton in disturbed areas	
Luzula congesta		Occasional throughout Denniston and Stockton at disturbed areas	
Poa annua	Annual poa; Winter grass	Recorded from Escarpment area	Environmental Weed (McAlpine & Howell 2024)
Poa trivialis	Rough meadow grass; Rough-stalked meadow grass	Occasional in Stockton Mine area	Environmental Weed (McAlpine & Howell 2024)