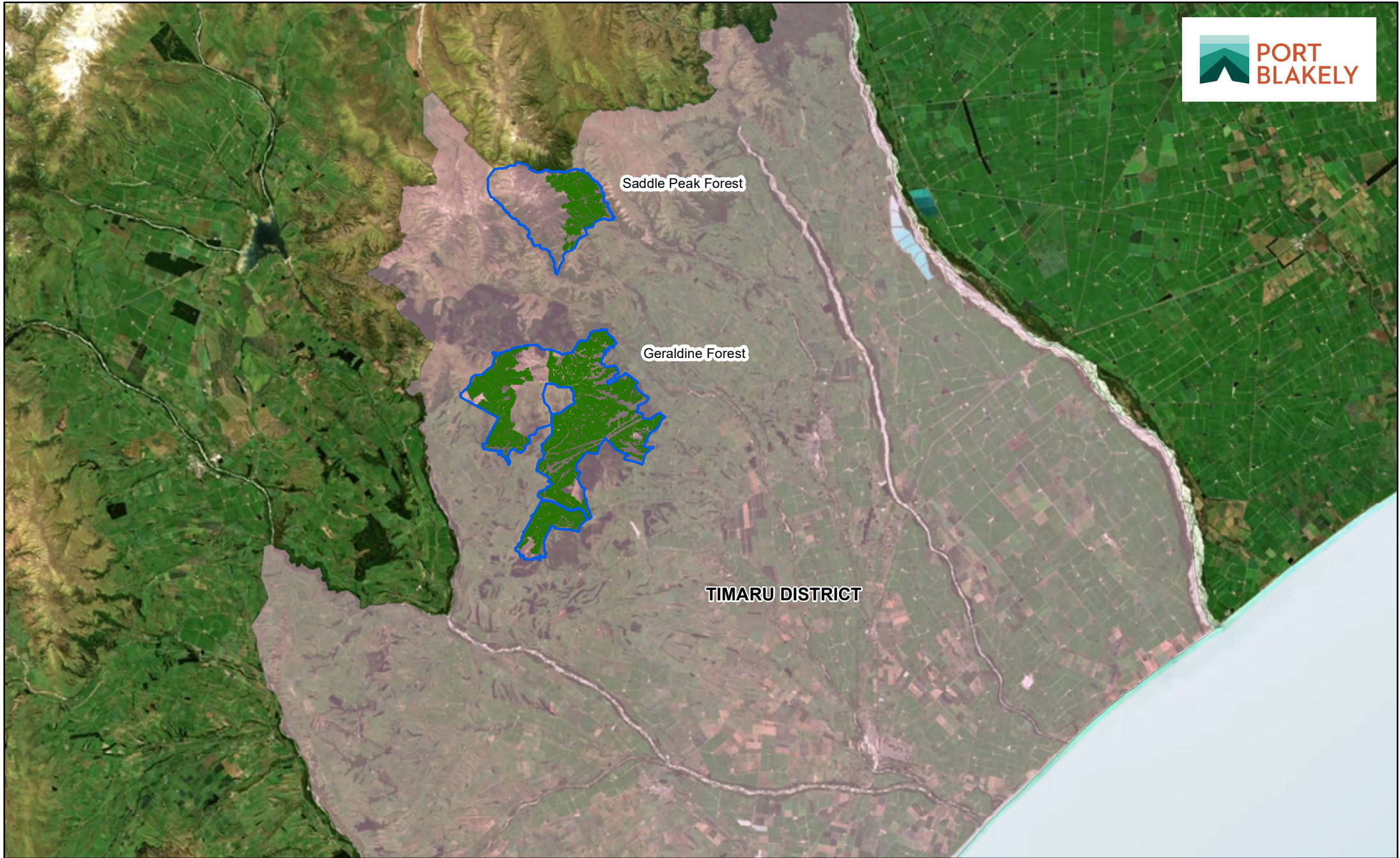


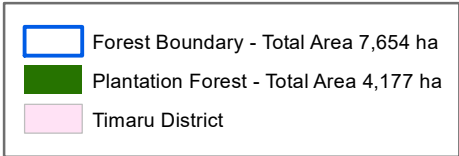
## **APPENDIX A**



Saddle Peak Forest

Geraldine Forest

TIMARU DISTRICT



## Location of Port Blakely's Plantation Forests in the Timaru District



## **APPENDIX B**





# 1 Vegetation Clearance

## 1.1 INDIGENOUS VEGETATION CLEARANCE

### 1.1.1 Overview of ancillary activity

*Indigenous vegetation* clearance is an ancillary activity regulated under Regulation 5(1)(i) of the NES-PF. *Indigenous vegetation* and *vegetation clearance* are defined in the NES-PF as:

***Indigenous vegetation*** – vegetation that is predominantly vegetation that occurs naturally in New Zealand or that arrived in New Zealand without human assistance

***vegetation clearance*** –

(a) the disturbance, cutting, burning, clearing, damaging, destruction, or removal of vegetation that is not a plantation forest tree; but

(b) does not include any activity undertaken in relation to a plantation forest tree.

Regulations 93 and 94 set out the circumstances in which *indigenous vegetation* clearance and *incidental damage* associated with *plantation forestry activities* can occur as a permitted activity, and when resource consent will be required. This only applies to *indigenous vegetation* clearance that occurs during or after *afforestation* as the NES-PF does not apply to *vegetation clearance* carried out before *afforestation* (Regulation 5(3)(a)).

As a land use, *plantation forestry* differs from most other types of cultivation in that the crop area remains undisturbed for lengthy periods of time until the crop is ready for *harvesting*. In that time, non-forest species often grow up within and adjacent to the *plantation forest* trees, including indigenous species. In certain circumstances, such as edge damage, some level of *indigenous vegetation* clearance or *incidental damage* is therefore unavoidable for operational reasons. For example, *harvesting* and associated *earthworks* (including the construction of *forestry roads*) often involve removal of *indigenous vegetation* alongside the *forest species* being harvested where *indigenous vegetation* has grown up in the understory of the *plantation forest*. The conditions in Regulation 93 are to ensure that *indigenous vegetation* clearance or *incidental damage* only occurs in specific circumstances and that foresters take proactive steps to minimise the extent of any clearance or damage where this is unavoidable. This will also be an area for future monitoring as part of the NES-PF Monitoring and Evaluation Plan.

### 1.1.2 Potential adverse environmental effects

The potential adverse environmental effects of *indigenous vegetation* clearance relate to the biodiversity values of the vegetation. This will vary significantly depending on the species affected, the size of the area affected and the ecological significance of the area. There are generally very limited adverse effects on biodiversity when the area of *indigenous vegetation* being cleared, disturbed or damaged is limited and there are no significant ecological values associated with that area of *indigenous vegetation*. The potential for adverse effects will be greater when the ecological values of the indigenous vegetation are higher and/or the area affected increases.

The other potential adverse environmental effects of *indigenous vegetation* clearance are:

- *Slash* reaching water, with the main effects relating to the direction or damming of the water body, leading to changes in water chemistry and water quality.
- Soil disturbance and soil erosion, leading to sedimentation in waterbodies which can affect instream habitats.



### 1.1.3 Permitted activity and conditions

*Vegetation clearance of indigenous vegetation associated with a plantation forestry activity is a permitted activity if:*

- Conditions 93(2) or (3) are complied with.
- It is not within a *significant natural area* (unless vegetation is overgrowing a forestry track, and the track has been used within the last 50 years).

Regulation 93(4) also permits *incidental damage to indigenous vegetation* and *incidental damage* is defined in regulations 93(5)(a) to 93(5)(c).

**Territorial authorities** have functions in relation to these regulations under the NES-PF.

**Regional councils** have no functions in relation to the *indigenous vegetation* clearance and *incidental damage to indigenous vegetation* under Regulation 93 and 94 of the NES-PF.

A summary of the permitted conditions for *indigenous vegetation* clearance and *incidental damage* is provided in Table 1. Sections 1.1.4 to 1.1.6 provide more detailed guidance on these conditions to assist with interpretation and implementation. For the exact wording of the conditions, refer to the NES-PF which can be accessed through the hyperlinks below.

Table 1: Summary of permitted activity conditions for indigenous vegetation clearance and incidental damage.

Condition	Territorial Authority
<a href="#">Vegetation clearance within plantation forest (Regulation 93(2))</a>	<p><i>Vegetation clearance of indigenous vegetation</i> may occur within an area of <i>plantation forest</i> if it:</p> <ul style="list-style-type: none"> <li>• Has grown up under (or overtopped) <i>plantation forestry</i>, or</li> <li>• Is within an area of a failed <i>plantation forest</i> that failed in the last rotation period (<i>afforestation to replanting</i>); or</li> <li>• Is within an area of <i>plantation forest</i> that has been harvested within the previous 5 years; or</li> <li>• Is overgrowing a forestry track and the track has been used within the last 50 years.</li> </ul>
<a href="#">Vegetation clearance within or adjacent to plantation forest (Regulation 93(3))</a>	<p><i>Vegetation clearance of indigenous vegetation</i> located within or adjacent to a <i>plantation forest</i> may be carried out if the:</p> <ul style="list-style-type: none"> <li>• Area of <i>indigenous vegetation</i> and the <i>plantation forest</i> are held in the same ownership; and</li> <li>• Cumulative clearance does not exceed 1ha or 1.5% (whichever is the greater) of the total area of <i>indigenous vegetation</i> within or adjacent to the <i>plantation forest</i> in which the clearance is proposed but excluding any <i>vegetation clearance</i> listed in Regulation 93(2).</li> </ul>
<a href="#">Incidental damage within or adjacent to a plantation forest (Regulation 93(4) and (5))</a>	<p><i>Incidental damage</i> is a permitted activity and may occur in an area that is within or adjacent to any <i>plantation forest</i>, including a <i>riparian zone</i>.</p>

### 1.1.4 Regulation 93(2) – Where indigenous vegetation clearance may occur

Regulation 93(2) outlines four circumstances where clearance of *indigenous vegetation* within a *plantation forest* is permitted. In most cases, it is expected that it will be straightforward to determine when *indigenous vegetation* clearance falls into one of these



four categories. For example, when *indigenous vegetation* has grown up within a *plantation forest* while the *forest species* also grew.

The clearance of *indigenous vegetation* in any of these circumstances is not subject to the clearance limits in Regulation 93(3). Foresters can clear the amount of *indigenous vegetation* that is necessary to meet their operational requirements within the *plantation forest* provided:

- The *indigenous vegetation* falls within one of the circumstances listed in Regulation 93(2).
- It is not within a *significant natural area* (except in the case of clearance of a *forestry track* described in sub-clause (2)(d)).

#### 1.1.5 Regulation 93(3) – Clearance limits

Regulation 93(3) limits the area of *indigenous vegetation* that can be cleared as a permitted activity within or adjacent to a *plantation forest* when it does not fall into any of the categories listed in Regulation 93(2). This only applies to areas of *indigenous vegetation* that are in the same ownership as the *plantation forest*.

Regulation 93(3) applies two limits on the cumulative amount of *vegetation clearance* that can occur – 1ha or 1.5% (whichever is the greater) of the total area of *indigenous vegetation* within or adjacent to a *plantation forest*. These limits exclude any *indigenous vegetation* clearance permitted under Regulation 93(2).

For smaller *plantation forests*, the maximum amount of cumulative *indigenous vegetation* clearance will generally be 1 ha. For larger *plantation forests*, the 1.5% threshold is likely to be the greater limit. The maximum cumulative area of *indigenous vegetation* clearance that is permitted is 0.015 x the total area (ha) of the *indigenous vegetation* within or adjacent to the *plantation forest*. Applying the 1.5% threshold will therefore require a good understanding of the amount of *indigenous vegetation* within the *plantation forest* and this can be extensive for some *plantation forests*. The 1.5% threshold should be calculated as the total area of *vegetation clearance* per *plantation forest* rather than the individual land parcel.

#### 1.1.6 Regulations 93(4) and (5) – Incidental damage

Regulation 93(4) permits *incidental damage* to *indigenous vegetation* in three circumstances which are defined in Regulation 93(5). *Incidental damage* is defined in Regulation 93(5) as:

- (a) *damage where the ecosystem will recover to a state where, within 36 months of the damage occurring, it will be predominately of the composition previously found at that location; or*
- (b) *damage to indigenous vegetation canopy trees that are greater than 15 m in height, where the damage does not exceed -*
  - (i) *30% of the crown of any indigenous vegetation canopy trees and no more than 30% of those trees per 100m of the indigenous vegetation perimeter length; or*
  - (ii) *10m in continuous length per 100m of a riparian zone length (with the applicable riparian zone width); or*
- (c) *if it occurs adjacent to a significant natural area, damage that*
  - (i) *does not significantly affect the values of that significant natural area; and*
  - (ii) *allows the ecosystem to recover as specified in paragraph (a).*

*Incidental damage* captures three distinct types of vegetation damage and it will be up to the forester to determine what type of *incidental damage* applies to their activity. For example:



- *Incidental damage to indigenous vegetation* canopy trees caused by work adjacent to or within a *riparian zone* is regulated under Regulation 93(5)(b)(ii).
- *Incidental damage to a significant natural area* is regulated under Regulation 93(5)(c).

*Incidental damage to indigenous vegetation* only needs to fall within one of the categories listed in Regulation 93(5) to be permitted under Regulation 93(4).

#### 36-month recovery timeframe

In areas of *indigenous vegetation* within or adjacent to a *plantation forest* there is a naturally occurring collection of species. If some of the species in this collection are damaged, Regulation 93(5)(a) states the ecosystem must recover to a state where it will be '*predominately of the composition previously found at that location*' within 36 months. The intent is to ensure natural regeneration can occur and the ecosystem itself is sustained, although there may be some natural change in the exact species at that location.

In the case of *riparian zones* (often the area most likely to incur *incidental damage* during *harvesting*), much of the vegetation is shrubby hardwood, adapted to recover from damage (e.g. due to normal flooding of the adjacent stream). In these areas, species recovery from *incidental damage* can often be expected within the 36-month timeframe.

If after 36 months of the *incidental damage* occurring, there is a significant change in the extent and type of vegetation present (e.g. the extent of *indigenous vegetation* has been significantly reduced and largely replaced by introduced weed species), then the ecosystem has not recovered to a state where it is predominately the composition previously found at that location and Regulation 93(5)(a) will not be complied with. To avoid potential compliance issues with Regulation 93(5)(a), it may be helpful to have some geo-referenced photos to be able to compare vegetation composition prior to or after the *incidental damage*.

#### Damage to canopy trees

Regulation 93(5)(b) permits *incidental damage* to canopy trees over 15m tall within and adjacent to a *plantation forest* and within a *riparian zone*.

Regulation 93(5)(b)(i) permits *damage* to indigenous canopy trees that does not exceed 30% of canopy trees per 100m of *indigenous vegetation* perimeter length and 30% of the crown of the tree. The crown of the tree is the branches, leaves, and reproductive structures extending from the trunk or main stems. The 30% limit is set on the basis that any damage that exceeds this is likely to result in the death of the tree. The most likely scenario where Regulation 93(5)(b)(i) will apply is where an indigenous forest remnant is surrounded by a *plantation forest*. Some damage of these canopy trees is likely to occur during the *harvesting* of the *forest species*.

Regulation 93(5)(b)(ii) applies to *incidental damage* of canopy trees over 15m tall in a *riparian zone*. *Riparian zone* is defined in the NES-PF as:

*'that margin and bank of a water body, including the area where direct interaction occurs between land and water systems, that is important for the management of water quality and ecological values.'*

Many *plantation forests* are located directly adjacent to *riparian zones* and these are also located within *plantation forests*. Regulation 93(5)(b)(ii) allows *incidental damage* of up to 10m of continuous length per 100m of a *riparian zone* (within the applicable *riparian zone* width). This allows for some damage to these trees for operational reasons while ensuring the function of the *riparian zone* to manage water quality and ecological values is maintained.

Compliance with Regulation 93(5)(b)(ii) should generally be able to be achieved through a visual inspection supported by photographic evidence as appropriate.



### Incidental damage to a significant natural area

Regulation 93(5)(c) provides that *incidental damage* can occur in a *significant natural area* provided:

- It does not significantly affect the values of that *significant natural area*; and
- The ecosystem can recover as specified in 93(5)(a) – i.e. it can recover to a state where it is predominately of the composition previously found at that location within 36 months.

The purpose of Regulation 93(5)(c) is to permit a small amount of damage to a *significant natural area* when *plantation forestry activities* are being undertaken immediately next to that *significant natural area*. This reflects the practical reality that there will inevitably be some edge damage to a *significant natural area* when activities such as *harvesting* occur alongside a *significant natural area*. The conditions in Regulations 93(5)(i) and 93(5)(ii) are to ensure any damage to a *significant natural area* is minimised and that foresters take proactive steps to comply with these conditions (e.g. felling trees away from these areas when safe and practicable to do so).

Compliance with Regulation 93(5)(c) needs to be assessed based on the specific values identified for the adjacent *significant natural area*. The reasons that the site received *significant natural area* status and its values should be identified from the *significant natural area* description in the plan and/or background reports. These are the values that should be assessed when considering the impact of *incidental damage* and whether it will significantly affect the values of that *significant natural area*.

For example, if a *significant natural area* was protected because it contained a rare or threatened species, but the *incidental damage* was not going to occur to the part of the *significant natural area* containing that species (and would not significantly affect that species in any other way), the damage would likely be '*incidental damage*' under Regulation 93(5)(c). Generally, small-scale peripheral damage associated with *harvesting* (the most likely activity to cause such damage) in a *significant natural area* will not significantly affect the values of a *significant natural area* and will allow the ecosystem to recover at that location within 36 months.





## 1.2 NON-INDIGENOUS VEGETATION CLEARANCE

### 1.2.1 Overview of ancillary activity

Non-indigenous *vegetation clearance* is regulated activity under Regulation 5(1)(i).

*Vegetation clearance* is defined in the NES-PF as:

***vegetation clearance*** –

(a) means the disturbance, cutting, burning, clearing, damaging, destruction, or removal of vegetation that is not a plantation forest tree; but

(b) does not include any activity undertaken in relation to a plantation forest tree

Non-indigenous *vegetation clearance* applies to the clearance of vegetation associated with a *plantation forest activity* that is not:

- *Indigenous vegetation* clearance regulated under regulations 93 and 94 in the NES-PF
- *Harvesting* as this is a regulated *plantation forestry activity* under Regulation 5(1)(f) and has a specific set of regulations in Part 2, subpart 6. The definition of *harvesting* also specifically excludes *vegetation clearance* of species that are not *plantation forest trees*.

### 1.2.2 Permitted activity and conditions

Regulation 95 permits non-indigenous *vegetation clearance* associated with a *plantation forestry activity* in relation to **territorial authority** functions and **regional council** functions provided that the relevant permitted activity conditions are met for the associated *plantation forestry activity* causing the clearance. The purpose of this Regulation is to make it clear that non-indigenous *vegetation clearance* associated with a *plantation forestry activity* is authorised under the NES-PF (if the conditions relevant to the activity are complied with). This is for the avoidance of doubt and to ensure foresters do not need to check the relevant plan to determine whether there are any non-indigenous *vegetation clearance* rules they need to comply with. For example, Regulation 95 authorises the removal of weeds, pest plants and shrubs that have established within or adjacent to the *plantation forest* over the forestry life cycle when this is associated with a *plantation forestry activity*.

## **APPENDIX C**

## Earthworks Construction

### 1.2 Clearing and Stripping



It is engineering best practice that the construction of earth formations (*fills*) should be free of organic material. Organic material, such as tree stumps and roots, surface vegetation (grass and scrub), *slash* and branches, and topsoil is unable to be *compacted*, decays over time, and can be a point of water entry, resulting in weak and unstable *fills* that may collapse.

Regulation 30 (1) of the NES-PF requires that *fill* must contain no more than 5% (by volume) of vegetation and wood.

This guide is provided as a reference document and does not constitute a statutory obligation under the Resource Management Act 1991 or the National Environmental Standards for Plantation Forestry.

Please refer to the 'how to use' section of the introduction at <http://docs.nzfoa.org.nz/forest-practice-guides/> for advice on how to use this guide.

## Earthworks Construction

### 1.2 Clearing and Stripping



#### Scope

This guide covers preliminary earthworks processes of vegetation clearance and stripping. It also includes removal of trees from the road corridor and *landing* sites (*road-line salvage*) and *stumping*.

#### Where to use

Clearing and stripping must be carried out in advance of all bulk earthworks including cut and side-cast, and cut and bench formation (refer to FPG EC #3 Bulk Earthworks) and full bench construction (refer to FPG EC #4 Fill Placement and Compaction). The interrelationship with these other Forest Practice Guides should be considered, where appropriate, when developing earthworks prescriptions.

Borrow pits and *overburden* dumps should also be cleared and stripped of vegetation and organic material.



Excavator and bull dozer clearing stumps and stripping prior to bulk earthworks.



Excavators clearing vegetation and stripping topsoil ahead of *landing* construction.



## Earthworks Construction

### 1.2 Clearing and Stripping



#### Earthworks management

All clearing and stripping should be carefully planned and executed with attention to both the short and long term effects on potential soil erosion. Local conditions pertaining to the operation should be detailed on the earthworks prescriptions.

The extent of *road-line salvage*, site clearance and stripping should be determined as part of the planning and design process (refer to FPG EC #1 Planning and Design) and clearly specified in the *road-line salvage* and earthworks prescriptions provided to contractors.

#### Road-line salvage

The establishment of new harvest access roads into a forest typically requires the felling and removal of trees (roadside salvage). This is often carried out by a specialist harvesting contractor, prior to the earthmoving contractor taking possession of site.

Where separate harvesting and engineering contractors are engaged the hand-over of the site, from the harvesting to engineering contractor, on completion of the *road-line salvage* operation needs to be managed carefully. A site inspection should be carried out to confirm clearance widths are sufficient to construct the road or *landing* effectively.

**Note:** allowance needs to be made for cut and fill slopes.

Earthworks should not commence if insufficient trees have been cleared and there is a risk that the cut and fill *batters* will encroach into standing trees.



Road corridor after *road-line salvage* and prior to clearing and stripping.



Example of good *road-line salvage* with a sufficient number of trees removed providing adequate width road formation.



Example of poor *road-line salvage* where adequate allowance has not been made for road formation and *fill* has been run into standing trees.

## Earthworks Construction 1.2 Clearing and Stripping



### Health, safety and environmental considerations

The planning and execution of *road-line salvage* and clearing operations must consider safety and environmental impacts and not create or leave hazards that will affect future operations.

Hazards arising from *road-line salvage* and stripping operations are:

1. Poor placement of tree stumps on steep slopes where they may be dislodged by future log tree felling and extraction operations.
2. Leaving trees standing above *landing* sites or operational areas. These may present wind fall risk to road users and workers on *landings*.

Place stumps and debris in a stable location where they will not interfere or cause safety issues for other forestry operations or have adverse environmental effects.



An example of good stump placement. Stumps have been placed on a shallow bench away from standing trees and the construction *fill* during clearing and stripping.



Poor placement of stumps, left resting on hill slope amongst standing trees – this represents a significant hazard to tree fallers and breaker outs during harvest.



Trees left standing above a *landing* site present a significant hazard. This risk would have been eliminated if trees were removed during *road-line salvage*.

## Earthworks Construction

### 1.2 Clearing and Stripping



#### Summary of key requirements

1. Ensure the extent of *road-line salvage* and site clearing requirements is confirmed during the planning and design phase and these are clearly communicated in the relevant operational prescriptions. On steep sites ensure allowance is made for cut and fill *batter* slopes.
2. Ensure a forestry earthworks management plan for the site is in place prior to earthwork commencing – Refer to Schedule 3 of NES-PF.
3. For orange and red zone sites and all others on sloping ground the extent of cut and fill *batters* (plus *buffers*) should be marked on the ground prior to *road-line salvage* and site clearing commencing.
4. Prior to earthworks commencing ensure that required (sufficient) trees have been removed to enable safe construction of the road or *landing*.
5. Choose the right machinery size and combination for the terrain, stump size and soil type. Excavator/ dozer combinations can work best.
6. Strip all organic matter, including top soil and stumps, prior to constructing the road or *landing*, to minimise the vegetation and wood within the *fill*.
7. Place stumps on flat stable ground or a secure bench or beyond the toe of *fills*. Where there is no suitable placement option, cart to a safe disposal site.
8. Keep stripped material away from *water bodies* or any restricted areas.

#### Maintenance

Not applicable, as clearing and stripping is the first step in constructing a road or *landing*.

#### National Environmental Standards for Plantation Forestry

Relevant regulations for earthworks are 25 – 35.

#### Contact



Forest Owners Association  
Level 9, 93 The Terrace  
Wellington 6143



[www.nzfoa.org.nz](http://www.nzfoa.org.nz)

#### Other Practice Guides in this series



1.1 Planning and Design



**1.2 Clearing and Stripping**



1.3 Bulk Earthworks



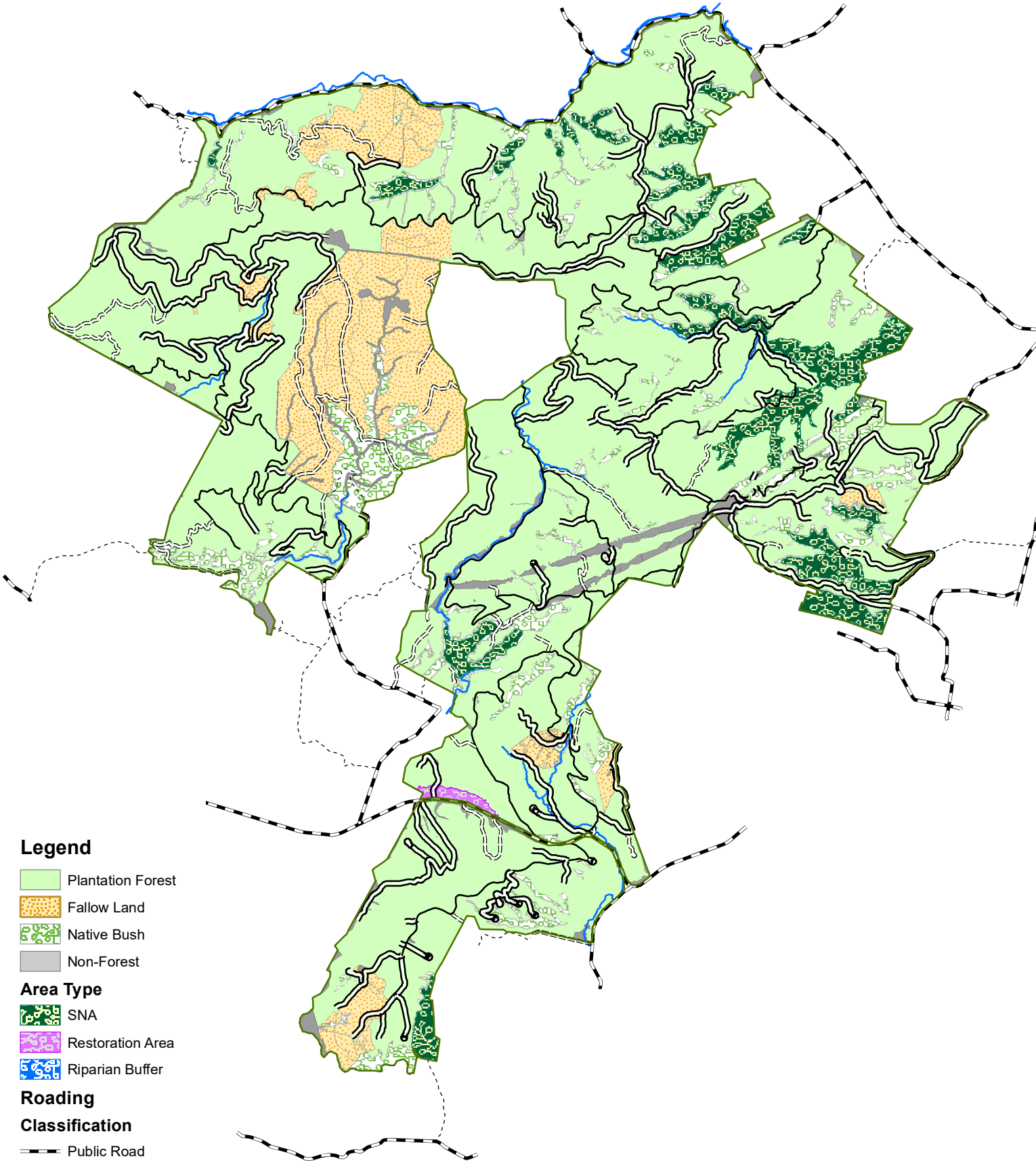
1.4 Fill Placement and Compaction

Visit:  
<https://docs.nzfoa.org.nz/forest-practice-guides/>  
to view all guides





# Geraldine Forest (Timaru District)



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## **APPENDIX E**

# Details for CRC021581.1

<b>RMA Authorisation Number</b>	CRC021581.1	<b>Client Name</b>	Port Blakely Limited
<b>Consent Location</b>	Saddle Peak Forest, WAIHI VALLEY	<b>State</b>	Issued - Active
<b>To</b>	to disturb land by installing several tracks, and to disturb the bed of unnamed streams to install culverts and stream crossings.		
<b>Commencement Date</b>	03 Dec 2007		
<b>Expiry Date</b>	23 Apr 2037		

- 1  
The works of installing tracks and culverts, at or about map reference NZMS 260 J37:5501-8917, as shown on Plan CRC021581, shall be carried out in accordance with the details submitted with the consent application, except where there are any inconsistencies, in which case the conditions of consent shall apply.
- 2  
Stormwater controls, such as watertable cut-offs and culverts, shall be installed to ensure erosion does not occur on the inside of the cut.
- 3  
On flat sections of the access track the running surface shall be cambered approximately one degree from the centre line and a water table constructed to provide drainage via culverts or cut-offs to prevent erosion.
- 4  
On inclined sections the access track shall be sloped approximately one degree in toward the bank, and a water table constructed to provide drainage via culverts and cut-offs to prevent erosion.
- 5  
Batters and side castings formed shall be stabilised by appropriate measures such as seeding, revegetation, compacting and/or drainage.
- 6  
The best practicable options shall be used to:
  - a. minimise soil disturbance and soil erosion;
  - b. minimise sediment from flowing into any surface water; and
  - c. avoid placing cut or cleared vegetation, debris, or excavated material in a position such that it may enter surface water.
- 7  
Stream crossings shall be stable and shall be constructed to cause minimum disturbance to existing crossings, banks, and margins of protective vegetation. For the purposes of this condition protective vegetation is defined as an area of vegetation, generally adjacent to a stream, with functions that include the maintenance of water quality by preventing sediment and other debris from entering the stream, protection of erodible land, and the protection of aquatic life.`
- 8  
Cut and fill slopes shall be stabilised by appropriate measures such as seeding, compacting or benching.
- 9  
Earthworks shall not be undertaken in a manner likely to cause erosion of, or instability to, the banks or bed of any surface water body.
- 10  
A three metre margin of protective vegetation shall be maintained adjacent to all perennial rivers and streams. For the purposes of this condition protective vegetation is defined as an area of vegetation,

generally adjacent to a river or stream, with functions that include the maintenance of water quality by preventing sediment and other debris from entering the stream, protection of erodible land, and the protection of aquatic life.

- **11** The grade of the track shall not exceed eight degrees.
- **12** Run-off from water-tables and cut-offs shall be directed to stable land areas to avoid erosion.
- **13** Any culverts that are installed shall be able to take at least 20-year flood peak, from any contributing catchment area based on the Rational Method of flood estimation, or an appropriate alternative.
- **14** The installation of any culverts shall not cause erosion to the bed or banks of any stream.
- **15** The track shall be maintained to minimise the risk of erosion. If erosion of the track occurs, the consent holder shall ensure that it is repaired as soon as is practicable.
- **16** Where practicable, all disturbed areas shall be re-vegetated as soon as is possible.
- **17** The works shall not prevent the passage of fish, or cause the stranding of fish in pools or channels.
- **18** The Canterbury Regional Council may, on any of the last five working days of June each year, serve notice of its intention to review the conditions of this consent for the purposes of dealing with any adverse effect on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage.

# Details for CRC174450

<b>RMA Authorisation Number</b>	CRC174450	<b>Client Name</b>	Port Blakely Limited
<b>Consent Location</b>	Geraldine Forest, GERALDINE	<b>State</b>	Issued - Active
<b>To</b>	to disturb and remove vegetation and soil; and to construct tracks, landings and to place culverts at or about map references J38:532-771, J38:470-742 and J38:413-724 for forestry purposes		
<b>Commencement Date</b>	01 Feb 2017		
<b>Expiry Date</b>	16 Apr 2032		

- **1** All works shall be undertaken in accordance with the plans and details submitted with the application dated 14 March 1997.
- **2** All works shall be carried out in a manner that minimises soil disturbance and soil erosion.
- **3** Stormwater controls, such as watertable cut-offs and culverts, shall be installed to ensure erosion does not occur on the inside of the cut.
- **4** The gradient of access tracks and roads shall not exceed one in eight, except where localised ground conditions require the gradient to be increased up to a maximum of one in six.
- **5** Fire breaks shall be constructed so as not to cause soil erosion.
- **6** Material which is likely to decompose shall not be placed where its subsequent decomposition may lead to land instability or movement of sediment and detritus into any surface water body.
- **7** No cut vegetation, debris, or other excavated material, shall be placed in any surface water body, or in a position such that it may enter any surface water body. For the purposes of this consent a surface water body is defined as any stream or watercourse containing fresh water with the exception of ephemeral streams.
- **8** A five metre margin of protective vegetation shall be maintained adjacent to all perennial rivers and streams. For the purposes of this condition protective vegetation is defined as an area of vegetation, generally adjacent to a river or stream, with functions that include the maintenance of water quality by preventing sediment and other debris from entering the stream, protection of erodible land, and the protection of aquatic life.
- **9** Cut and fill slopes shall be stabilised by appropriate measures such as seeding, compacting or benching.
- **10** Skidder tracks shall follow the contour where practicable, and the number of skidder tracks formed shall be kept to the minimum needed to perform the activity.
- **11** Stream crossings shall be stable and shall be constructed to cause minimum disturbance to existing crossings, banks, and margins of protective vegetation. For the purposes of this condition protective vegetation is defined as an area of vegetation, generally adjacent to a stream, with functions that



include the maintenance of water quality by preventing sediment and other debris from entering the stream, protection of erodible land, and the protection of aquatic life.

- **12**  
No blanket spraying of vegetation with herbicides shall be carried out within 20 metres of any surface water body.
- **13**  
Any culverts required shall be proprietary products of a suitable size to take at least the annual flood peak from any contributing catchment area based on the Rational Method of flood estimation, or an appropriate alternative. All culverts are to be installed in accordance with manufacturers specifications, and laid level on a firm base. Appropriate measures shall be taken to minimise the risk of erosion and scour from water exiting the culvert.
- **14**  
Every 12 months a detailed map shall be provided to the Canterbury Regional Council's Timaru Office, showing the areas that are to be harvested. The first 12 month period shall commence with the granting of this consent.
- **15**  
On inclined sections the access track shall be sloped approximately two degrees in toward the bank, and a water table constructed to provide drainage via culverts and cut-offs to prevent erosion.
- **16**  
The Canterbury Regional Council may annually, on the last working day of November, serve notice of its intention to review the conditions of this consent for the purposes of:(a) dealing with any adverse effect on the environment which may arise from the exercise of the consent and which is appropriate to deal with at a later stage; or(b) complying with the requirements of a relevant rule in an operative regional plan.
- **17**  
Charges, set in accordance with section 36 of the Resource Management Act 1991, shall be paid to the Regional Council for the carrying out of its functions in relation to the administration, monitoring and supervision of resource consents and for the carrying out of its functions under section 35 of the Act.
- **18**  
Note:The holder of this consent should become familiar with, and carry out all works having regard to, the New Zealand Forest Code of Practise.