

# Wenita Forestry Natural Areas Assessment Form

## Site Location Description

Site Name:	Susan Road Bush		
Location:	Hope Hill		
Catchment:	Otokia		
Region:	Brighton		
Compartment ID:	OTCO 39		
NZMS Grid Reference		GPS Coordinates	
NZMS Grid Reference		East	-45.954402
East		North	170.282764
North		Accuracy	
Area in Hectares from GIS	7.7		
Aerial Photograph Reference			

## Site Assessment

Assessment Date(s)	28/8/2014
Revision Date (s)	10/9/2014
Final Report Date (s)	24/9/2014
Assessed By	Paul Pope Spiralis Ltd
Recorded By	Paul Pope Spiralis Ltd
Notes:	

## Primary Vegetation Type

Tick box as appropriate

Primary native forest (undisturbed) with emergent podocarps	
Modified native forest (disturbed through logging of native timber)	<input checked="" type="checkbox"/>
Secondary (regenerated forest after land clearance)	
Re-vegetated forest (re-established on bare land through planting)	
Heavily modified (dominated by weed and exotic species)	
Pasture land (predominantly exotic grassland with some weeds)	
Tussock grassland with typical native shrub species	
Wetland (predominantly wetland/marshland)	
Exotic Production Forestry	

Notes: The area is split into 2 distinct sites by Susan Road. Both parts are dominated by kanuka regeneration which suggests late 19<sup>th</sup> or early 20<sup>th</sup> century disturbance when the site was probably cleared for grazing. The outer fringes of both sites have been cleared of production forestry recently and are dry with poor ground cover. The inner core of both parts have a wider range of plant diversity and ground cover.

<b>(Predominant) Vegetation Health</b>	<b>Describe as appropriate</b>
<p>Did the primary, modified or secondary forest sites have significant canopy gaps? If yes give an estimate of the number of these and their approximate size.</p>	<p>Some minor canopy disturbances in the more northern part of the site, approximately 20-30 square metres.</p>
<p>In the primary, modified or secondary forest sites show signs of regeneration of native seedlings and shrub size species in the forest floor using the following;</p> <ol style="list-style-type: none"> <li>1. No visible seedlings</li> <li>2. Occasional but sporadic and sparse</li> <li>3. Very common almost every step with a few gaps</li> <li>4. Abundant and thick making access difficult</li> </ol>	<p>2 -In the fringes of the kanuka there was sporadic seedling growth.</p> <p>3-4 While in the inner parts of the sites seedlings were more prolific.</p>
<p>In the primary, modified or secondary forest sites was the plant composition of the forest floor intact with fern and other smaller ground cover species?</p> <ol style="list-style-type: none"> <li>1. No visible forest floor species</li> <li>2. Occasional but sporadic and sparse</li> <li>3. Very common almost every step with a few gaps</li> <li>4. Abundant and thick making access difficult</li> </ol>	<p>1-2 In the fringes of the kanuka area groundcover was poor.</p> <p>3-4 While in the inner parts of the sites groundcover were more prolific.</p>
<p>In the tussock grassland with typical native shrub species were there visible gaps, areas of bare vegetation, or areas dominated by exotic forest species visible in the site? If yes give an estimate of the number of these and their approximate size.</p>	<p>N/A</p>
<p>In the tussock grassland sites was there evidence of regeneration of the native plant cover of grass, shrub and groundcover across the site using the following:</p> <ol style="list-style-type: none"> <li>1. No visible seedlings</li> <li>2. Occasional but sporadic and sparse</li> <li>3. Very common</li> <li>4. Abundant</li> </ol>	<p>N/A</p>
<p>In the wetland (predominantly wetland/marshland) sites visible gaps, areas of bare vegetation, or areas dominated by exotic forest species visible in the site? If yes give an estimate of the number of these and their approximate size.</p>	<p>N/A</p>
<p>In the tussock grassland sites was there evidence</p>	<p>N/A</p>

<p>of regeneration of the native plant cover of grass, shrub and groundcover across the site using the following:</p> <ol style="list-style-type: none"> <li>1. No visible seedlings</li> <li>2. Occasional but sporadic and sparse</li> <li>3. Very common</li> <li>4. Abundant</li> </ol>	
<p>Notes:</p>	

Describe the presence, density and species of weeds within the assessed area and give estimations of the potential cover of those species.

<b>Pest Plant Presence</b>					
<b>Vine Species</b>	<b>Heavy &gt;50% Canopy</b>	<b>Moderate &gt;10-30% Canopy</b>	<b>Light &lt;5-10% Canopy</b>	<b>Sparse &lt;5% Canopy</b>	<b>None Not Observed</b>
Muehlenbeckia				<input checked="" type="checkbox"/>	
Passionfruit					<input checked="" type="checkbox"/>
Old Man's Beard					<input checked="" type="checkbox"/>
Chilean Flame Creeper					<input checked="" type="checkbox"/>
Convolvulus				<input checked="" type="checkbox"/>	
Other					
Are there multiple vine species present? (If yes describe)	No				
Are the vines species limited to gullies or area fringes? (Describe)	Fringe areas showed some signs of Muehlenbeckia and Convolvulus				
Notes:					

## Pest Plant Presence

Shrub Tree Species	Heavy >50% Area	Moderate >10-30% Area	Light <5-10% Area	Sparse <5% Area	None Not Observed	Peripheral edges of area? Yes/No?	Internal parts of area and advancing? Yes/ No?
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Gorse			<input checked="" type="checkbox"/>			Y	
Broom			<input checked="" type="checkbox"/>			Y	
H Honeysuckle			<input checked="" type="checkbox"/>			Y	
Elderberry			<input checked="" type="checkbox"/>			Y	
Hawthorn				<input checked="" type="checkbox"/>		Y	
Spanish heath					<input checked="" type="checkbox"/>		
Willow					<input checked="" type="checkbox"/>		
Sycamore					<input checked="" type="checkbox"/>		
Wilding Pine <5 years					<input checked="" type="checkbox"/>	No	
Wilding Pine >5 years				<input checked="" type="checkbox"/>			Yes
Other (Describe)							

Notes:

## Pest Plant Presence

Ground Cover Species	Heavy >50% Area	Moderate >10-30% Area	Light <5-10% Area	Sparse <5% Area	None Not Observed	Peripheral edges of area? Yes/No?	Internal parts of area and advancing? Yes/No
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Aluminium plant					<input checked="" type="checkbox"/>		
Periwinkle					<input checked="" type="checkbox"/>		
Ivy					<input checked="" type="checkbox"/>		
Nasella tussock					<input checked="" type="checkbox"/>		
Iris					<input checked="" type="checkbox"/>		
Blackberry			<input checked="" type="checkbox"/>				
Montbretia					<input checked="" type="checkbox"/>		
St John Wort					<input checked="" type="checkbox"/>		
Agricultural grasses			<input checked="" type="checkbox"/>				
Other (Describe)							

## Pest Animal Presence

Species	Heavy Significant faeces sign, marking or prints. Animals seen or heard	Moderate Fresh scattered sign, prints or marking in areas	Light Uncommon sign, marking or prints in area	Sparse Very uncommon sign, marking or prints in area	None Not Observed	Domestic stock sign is the area fenced? Yes /No?	Does the area border a farm Yes/No?
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Opossum			<input checked="" type="checkbox"/>				
Deer					<input checked="" type="checkbox"/>		
Pigs				<input checked="" type="checkbox"/>			
Goats					<input checked="" type="checkbox"/>		
Sheep (Wild)					<input checked="" type="checkbox"/>		
Cattle (Wild)					<input checked="" type="checkbox"/>		
Feral Cat					<input checked="" type="checkbox"/>		
Mustelids					<input checked="" type="checkbox"/>		
Vermin					<input checked="" type="checkbox"/>		

Other (Describe)	
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Are there known animal control programmes undertaken in this area? (Describe)	Not known
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Is the number of recreational hunting permits and animals harvested from the area known for the last 12 months? (Describe)	Not Known
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Notes: Older minor pig rooting was observed in the southern part of the compartment.

## Uncontrolled Human Impacts

Activities	Common use within the area, heavy vehicle tracks	Occasional incursions into the area	Light Sporadic use	Sparse	None
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4 WD Ute/Car					<input checked="" type="checkbox"/>
4WD Quad Bike					<input checked="" type="checkbox"/>
Motor Bike					<input checked="" type="checkbox"/>
Mountain Biking					<input checked="" type="checkbox"/>
Fire-wooding					<input checked="" type="checkbox"/>
Camping/Fires					<input checked="" type="checkbox"/>
Camping/Toileting					<input checked="" type="checkbox"/>
Hunting (unpermitted)					<input checked="" type="checkbox"/>
Dumping Vegetation					<input checked="" type="checkbox"/>
Dumping Household					<input checked="" type="checkbox"/>

Notes: Some minor vegetation damage and informal walking tracks.

Note the type and number of bird species found within the area. This is not a definitive count or an estimate of abundance only an observation based on the time of assessment.

## Avian Fauna

Native Species	Number	Notes
Falcon		
Tui	1	
Bellbird	2	
Kereru		
Robin		
Tomtit	1	
Morepork		
Shining cuckoo		
Silvereye		
Fernbird		
Scaup		
Pukeko		
Other (Describe)		

Note the type and number of bird species found within the area. This is not a definitive count or an estimate of abundance only an observation based on the time of assessment.

<b>Avian Fauna</b>		
<b>Exotic Species</b>	<b>Number</b>	<b>Notes</b>
Blackbird	3	
Sparrow	2	
Starling		
Harrier		
Thrush	2	
Rosella		
Magpie		
Geese		
Mallards		
Chaffinch		
Other (Describe)		

<b>Water Catchment Overview</b>	<b>Yes</b>	<b>No</b>	<b>Estimated Number</b>
Major water bodies (>5 metre in width) within its boundaries?			
Minor water bodies (<5 in width) within its boundaries?	<input checked="" type="checkbox"/>		2-3
Are there wetlands, bogs or fens within the areas boundaries?		<input checked="" type="checkbox"/>	
Artificial water races or water courses?		<input checked="" type="checkbox"/>	
Storage ponds or dams		<input checked="" type="checkbox"/>	
Does the area have an existing SHMAK monitoring site within it?		<input checked="" type="checkbox"/>	
Do roading culverts run into the area?	<input checked="" type="checkbox"/>		2
Notes: Both parts will have running water in their gullies due to high rainfall periods.			

The shape, scale and situation of the assessed site will describe how the site connects to the wider landscape as a habitat for the growth of flora and fauna. Aerial photograph and mapping will give a good understanding of this aspect of the assessment, but should be undertaken with a physical inspection.

## Landscape and Connectivity

Describe the shape of the assessed area.

- a) A narrow long strip < 50 metres wide adjacent to a waterway
- b) A narrow long strip <50 metres wide adjacent to farmland or exotic forest
- c) A small patch <1-2 hectares
- d) A compact core area with outer strips reaching out from the core
- e) A solid compact defined area
- f) Neither (Describe)

D) – This compartment is two compact core separated by Sarah Road.

Is the area isolated from similar sites within the location? (i.e. surrounded by exotic forest)

- a) The area is surrounded by exotic forest
- b) The area is surrounded by pasture or farm land
- c) There are similar sites within 5-10 kms
- d) There are other similar sites within 2-5 kms
- e) There are other similar sites <1 km
- f) There are other sites immediately adjacent
- g) Unknown (Describe)

The area is surrounded by felled exotic forest but similar sites lie within 2-5 kilometres of the compartment.

Notes:

## Natural Area Ranking Classification

Rank	Description	Criteria	Score
5	Exceptional	<ul style="list-style-type: none"> <li>Large undisturbed site</li> <li>No exotic weeds or introduced species</li> <li>Highly endemic and representative to the particular ecological district</li> </ul>	
4	Very High	<ul style="list-style-type: none"> <li>Last example of its type which was previously widespread in the district</li> <li>Some peripheral disturbance to vegetation in pre European period</li> <li>Creates a large continuous section across the area</li> <li>&gt;200 hectares with minor &lt;5% weed or introduced species cover along fringes</li> <li>Secondary vegetation creates buffer to "exceptional" areas</li> </ul>	
3	High	<ul style="list-style-type: none"> <li>Modified native vegetation representative of the district and with elements of former composition remaining</li> <li>Contains areas of modified secondary vegetation which provides a buffer to "very high" areas</li> <li>&gt;75 hectares with small areas of weed infestation on the outer fringes (10-20%)</li> <li>Last of the vegetation type in the district but in a modified condition through historical change</li> </ul>	3
2	Moderate	<ul style="list-style-type: none"> <li>Substantial human modification of areas</li> <li>Small areas of disparate native vegetation</li> <li>Occasionally act as buffers to larger higher quality sites</li> <li>Very high weed dominance along fringes moving towards outer core</li> <li>Native vegetation cover &gt;10-25% of the area</li> </ul>	
1	Low	<ul style="list-style-type: none"> <li>Very small disjointed areas of native vegetation (sporadic trees or shrubs)</li> <li>Heavy dominance of exotic vegetation and weeds</li> <li>Heavily modified landscape and landforms</li> <li>Examples of secondary succession caused by human disturbance that has created a vastly different vegetation type than previously found</li> <li>Native vegetation covers &lt;10% of area</li> </ul>	

The outer kanuka areas are dry and have been shaded due to production forestry. The inner areas have solid sub-canopy and groundcover species present and the site provides useful wider ecological and landscape connectivity.

## Recommendations and Additional Comments

Fringe weed control of broom, gorse, himalayan honeysuckle and blackberry now that the adjacent exotic forest has been felled.

Removal of the larger wilding pines.



The northern edge of the compartment adjacent to the felled production forestry. The edges are dominated by kanuka that very dry with some seedling development and poor groundcover.



The outer fringes of the site are dry and have poor groundcover. This is probably due to regeneration after late 19<sup>th</sup> and early 20<sup>th</sup> century clearance for grazing.



**Removal of production forestry from the fringes will require monitoring for weed incursions from the compartment fringe.**



**Both the northern and southern parts of the compartment showed heavy groundcover, shrub and sub canopy tree development away from the outer dry kanuka dominated fringes.**