

# Wenita Forestry Natural Areas Assessment Form

## Site Location Description

Site Name:	Halfway Bush Reserve		
Location:	Berwick		
Catchment:	Meggat Burn		
Region:	Berwick		
Compartment ID:	007		
NZMS Grid Reference		GPS Coordinates	
NZMS Grid Reference		East	-45.958347
East	1 369 740	North	170.028759
North	4 906 260	Accuracy	-
Area in Hectares from GIS	Approximately 5.5		
Aerial Photograph Reference			

## Site Assessment

Assessment Date(s)	15 May 2017
Revision Date (s)	13 June 2017
Final Report Date (s)	13 June 2017
Assessed By	Mike Mullan (Wenita)
Recorded By	Mike Mullan (Wenita)
Notes:	None

## Primary Vegetation Type

Tick box as appropriate

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

<b>(Predominant) Vegetation Health</b>	<b>Describe as appropriate</b>
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.	1 small gap on the southern side where a large podocarp had collapsed <30 m <sup>2</sup>
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:  <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>	4 – Strong native seedling and shrub sub-canopy and seedling regeneration throughout the site.
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?  <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>	3 – Very common with some thinning in areas where the public walking tracks have been developed.
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.	N/A
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:  <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>	N/A
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.	N/A
In the tussock grassland sites was there evidence	N/A

<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>	
Notes:	

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>	Heavy >50% Canopy	Moderate >10-30% Canopy	Light <5-10% Canopy	Sparse <5% Canopy	None Not Observed
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)	A small amount of peripheral Muehlenbeckia australis on the edges of the southern section and adjacent to the road				
Notes:					
No major vine species present in the reserve					

<b>Pest Plant Presence</b>							
<b>Shrub Tree Species</b>	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?
Gorse				<input checked="" type="checkbox"/>			
Broom				<input checked="" type="checkbox"/>			
H Honeysuckle				<input checked="" type="checkbox"/>			
Elderberry					<input checked="" type="checkbox"/>		
Hawthorn					<input checked="" type="checkbox"/>		
Spanish heath					<input checked="" type="checkbox"/>		
Willow					<input checked="" type="checkbox"/>		
Sycamore					<input checked="" type="checkbox"/>		
Wilding Pine <5 years					<input checked="" type="checkbox"/>		
Wilding Pine >5 years					<input checked="" type="checkbox"/>		
Other (Describe)							
Notes: Small amount of peripheral gorse and honeysuckle which is more common on adjacent areas outside of the inspected compartment.							

  

<b>Pest Plant Presence</b>							
<b>Ground Cover Species</b>	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
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)							
Notes: Minor agricultural exotic grasses within the small car-park area but no weeds found through the main parts of the compartment.							

<b>Pest Animal Presence</b>							
<b>Species</b>	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?
Opossum							
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)							
Are there known animal control programmes undertaken in this area? (Describe)	Berwick forest was subject to a 1080 drop by TB Free New Zealand last year in July targeting possums. This should have reduced the possum population quite significantly.						
Is the number of recreational hunting permits and animals harvested from the area known for the last 12 months? (Describe)	None noted. Berwick has just recently opened up to recreational hunting in the last few months						
Notes: A small amount of pig rooting on the Northern side was noted							

## Uncontrolled Human Impacts

### Activities

Common use within the area, heavy vehicle tracks

Occasional incursions into the area

Light Sporadic use

Sparse

None

Activities	Common use within the area, heavy vehicle tracks	Occasional incursions into the area	Light Sporadic use	Sparse	None
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"/>

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		
Bellbird	3 +	
Kereru	1	
Robin		
Tomtit	1	
Morepork		
Shining cuckoo		
Silvereye	1+	
Fernbird		
Scaup		
Pukeko		
Notes:	This assessment was done in late Autumn so the amount of available food for birds was low hence a low bird count present.	

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		
Sparrow		
Starling		
Harrier		
Thrush		
Rosella		
Magpie		
Geese		
Mallards		
Chaffinch		
Notes		

<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?	<input checked="" type="checkbox"/>		1
Minor water bodies (<5 in width) within its boundaries?	<input checked="" type="checkbox"/>		4
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"/>		2-3
Notes:			
Water levels in the creeks we running and the position of the site above a major creek suggests that at periods of high water flow the site contributes significantly to the overall catchment.			

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

<p>Describe the shape of the assessed area.</p> <ul style="list-style-type: none"> <li>a) A narrow long strip &lt; 50 metres wide adjacent to a waterway</li> <li>b) A narrow long strip &lt;50 metres wide adjacent to farmland or exotic forest</li> <li>c) A small patch &lt;1-2 hectares</li> <li>d) A compact core area with outer strips reaching out from the core</li> <li>e) A solid compact defined area</li> <li>f) Neither (Describe)</li> </ul>	<p>E: A solid compact defined area divided by the forestry road</p>
<p>Is the area isolated from similar sites within the location? (i.e. surrounded by exotic forest)</p> <ul style="list-style-type: none"> <li>a) The area is surrounded by exotic forest</li> <li>b) The area is surrounded by pasture or farm land</li> <li>c) There are similar sites within 5-10 kms</li> <li>d) There are other similar sites within 2-5 kms</li> <li>e) There are other similar sites &lt;1 km</li> <li>f) There are other sites immediately adjacent</li> <li>g) Unknown (Describe)</li> </ul>	<p>A. The area is surrounded by exotic forest.</p> <p>There are very few sites of similar condition or vegetation composition in the area.</p>
<p>Notes:</p> <p>There has been no significant changes to the reserve since the last assessment was done. The gorse growing in the car park area is of concern and will be sprayed and controlled this year. The Halfway road that runs through the reserve will have some maintenance done by a roadside slasher to keep access open.</p>	



## Natural Area Ranking Classification

Rank	Description	Criteria	Score
5	<b>Exceptional</b>	<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>	4.5
4	<b>Very High</b>	<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;50 hectares with minor &lt;5% weed or introduced species cover along fringes</li> <li>• Secondary vegetation creates buffer to "exceptional" areas</li> </ul>	
3	<b>High</b>	<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>	
2	<b>Moderate</b>	<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	<b>Low</b>	<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>	

### Notes:

The site ranks very highly as an area of minimal disturbance or weed invasion. It is highly representative of the forested areas that once were common in this region. The scale of this site is quite small.

## Recommendations and Additional Comments

Overall this site was of very high value with significant emergent podocarps and largely intact strata levels of vegetation. Its abundant birdlife shows that this site is an important area of landscape and biodiversity connectivity important to the wider region.

The recreational use of the site is low though the infrastructure was in position to allow public access with appropriate conditions.

Recommendations include:

- Ensuring weed species do not dominate canopy collapses and the outer fringes in to the core of the site.
- Ensuring operational logging is undertaken in a manner that ensures the buffer and fringes are not affected.
- Use of the site by Wenita for open days as an example of appropriate natural area management.

Mike Mullan	15/5/2017		Halfway Bush Reserve

Record photographs and their storage of this site assessment



