Northland Region	al Landscape Assessment Worksheet			
	Unit name – NORTH RIVER AND WAIPU CAVES FORESTS AND REMNANTS			
DESCRIPTION AND CHAI				
Component Land Types Central rolling hills; strongly undulating land type	Comment Visible as an elevated vegetated landform, the unit forms a recognisable feature within the landscape and one of a number of similar elevated landform features, which contributes to the character of the lower part of the region.			
Geology (including geopreservation sites) Manaia / Bream Head stratovolcano	North River Forest: Steep hill country with deeply incised valleys and gullies; predominantly underlain by Mesozoic greywake (Waipapa Terrace), but with areas of Oligocene limestone karst (Whangarei Limestone, Te Kuiti Group) along Waipu Caves Road, and Miocene sandy mudstone (Waitemata Group) in the vicinity of Q07 311811. Small areas of Holocene alluvial flats are present in the North River gorge from Q07 328832-326829, and on the southern side of a prominent fault scarp at Q07 358819.			
	Within the northern portion of the area the hillslopes and gullies are also underlain by bluff-forming sandstone (Waitemata Group).			
	Waipu Caves Forest: Steep hill country with deeply incised valleys and gullies; predominantly underlain by Mezozoic greywake (Waipapa Terrane) but with areas of Oligocene limestone karst (Whangarei Limestone, Te Kuiti Group) along Waipu Caves Road, and Miocene sandy mudstone (Waitemata Group).			
	The limestone geology and the vegetation it supports is regionally distinctive (Kenny & Hayward, 1996) and the limestone cave system has been ranked as regionally important for geomorphology because it includes the largest cave passage in Northland and some fossil bone deposits.			
Soil Types	The unit, particularly the Waipu Caves Road Scenic Reserve, is ranked as being a soil site of national importance (Arand et al. 1993).			
	The North River Forest shares a commonality with the Ruakaka Forest, being primarily overlain by Rangiora clay loam and Marua clay loam. Soils on the primary ridges within both forest areas comprise Marua clay loam and Te Ranga steepland soils, light brown clay loam and stony clay loams.			
Ecology (including protected vegetation / features, PNAP Level 1 and 2 sites)	North River Forest: Identified in the Waipu Ecological District PNAP report as Q07/117 (North River Forest), this Level 1 site comprises 973.4 ha of forest, and 4.5 ha of shrubland.			
	The forest is largely contiguous, occupying east – west trending steep hill country south of Waipu caves Road and north of Helmsdale Road. The forest lies within two catchments of the North River, although the river lies to the south. One of these drains east off the northern side of the hills. The other drains south, through a steep, winding, limestone gorge that descends from Waipu Caves Road. This gorge contains a number of sizable waterfalls.			

	The forest is one of the largest areas of indigenous bush within the Waipu Ecological District and forms a 'stepping stone' betweem the Ruakaka Forest and the Mereretu Forest.
	The site is of significance due to the presence of four threatened plant species; <i>Doodia squarrosa</i> , <i>Doodia mollis</i> , mida and <i>Nematoceras rivulare</i> , five regionally significant plant species <i>Hebe macrocarpa var. macrocarpa</i> , tree fuscia, <i>Oxalis magellanica</i> , <i>Brachyglottis kirkii var. angustior</i> , and gully tree fern. In addition, a number of threatened fauna species are present, including kauri snail, kukupa, Hochstetter's frog, and longfin eel, and two regionally significant fauna species (tomtit and banded kokopu.
	The forest contains nine representative ecological ecological types; kanuka-rimu-tanekaha, -rimu forest on ridge, kanuka-mamaku forest on ridge, hillslope and in gully head, taraire forest on moderate to steep hillslope and gully, tanekaha-kanuka forest on ridge and steep hillslope, kanuka forest on ridge, puriri forest in gully, kauri-kanuka forest on ridge, kanuka-rewarewa forest in gully head, rimu-tanekaha forest on ridge and kowhai-kahikatea forest on alluvium (unique in the Ecological District and rare nationally).
	The forest within the northern portion of the area (Q07/120, Caves Road Forest) – situated directed north of Waipu Caves Road and west of Ormiston Road, where it is closely linked with the larger forest area to the south, is more fragmented. It comprises 171.0 ha of forest and 0.8 ha wetland. The vegetation over much of the site is characterised by young kanuka forest with frequent totara and mamuku.
	The site is of significance due to the presence of kaikomako (Regionally Significant), Hochstetter's frog (Sparse), New Zealand dabchick (Sparse), Australasian little grebe (Coloniser; regionally significant), kukupa (Gradual Decline). This portion of the site includes a representative example of nikau forest on moderate hill slope which is unrecorded elsewhere in the Ecological District.
	Waipu Caves Forest: Identified in the Waipu Ecological District PNAP report as Q07/118 (Waipu Caves Forest), the Level 1 site comprises an area of 370.80 ha, much of which is totara forest on moderate hillslope.
	The forest is long and narrow in shape, extending over 5 km in an east-west direction and 600 m wide north to south and occupying steep hill country. The site is bisected by Waipu Caves Road and is grazed throughout much of its area.
	The two major ecological units of the site are representative of their types, being totara forest on moderate hillslope, and totara-taraire forest on moderate hillslope and in a gully.
	The forest provides an important ecological linkage between North River Forest and Ruakaka Forest. It also contains one threatened plant species (Doodia mollis) and two regionally plant species (carmine rata and tree fuscia). Five threatened fauna species (kukupa, kauri snail, Hochstetter's frog) are present within the site.
Archaeological sites	None known.

Heritage Landscapes	None known.

Landscape characterisation (including the identification of any specific characteristics)

Located to the north of the Mareretu Forest, this unit relates strongly both to that, and the Ruakaka Forest to the north east and all form elements of the 'horse-shoe' of forested ranges that arches from the Brynderwyns to the Harbour.

Like the aforementioned forests, the North River Forest is glimpsed from State Highway 1 as an inland line of bush clad hills, although for the traveller, distinguishing between the individual range is challenging.

Viewed from the surrounding countryside this group of units also tends to merge, with bush remnants occupying the steeper slopes and gullies, providing linking structural elements and lending the landscape a strong 'bush' character.

Smaller in both area and stature than the forest to the south, the unit is separated from the Mareretu Forest by the valley of the North River – a broad pastoral valley accessed by Helmsdale Road. From this road, the steepness of the vegetated northern valley side is evident and dominates the view.

The North River Forest unit is accessed via Waipu Caves Road and Palmer Road and these roads trace a broad ridge up to the high point, at 239 m. The ridge has been cleared of forest for grazing and scattered dwellings are visible, but are generally well integrated into the landscape. A recent subdivision has facilitated the construction of a number of additional dwellings along the crest of the south facing slope, however these buildings are unlikely to detract from the landscape values of the unit when viewed from the south.

To the north, the Waipu caves Forest unit occupies steeper slopes of a linear range of hills which rises to a maximum height of some 270 m and is aligned west – east. The unit is bisected by Waipu Caves Road.

EVALUATION		
Criteria	Rank	Comment
Natural Science Factors		
Representativeness Natural landscapes are clearly characteristic of the area, district or region. The key components of the landscape will be present in a way that defines the character of the place and distills its character and essence. Endemic associations.	4	The unit is strongly representative of the sequence of ranges vegetated with native forest that occurs between the Brynderwyns and Takahiwai Range. These features characterise the landscape within this part of the region, and are representative of Northland as a whole.
Rarity Natural features are unique or rare in the region or nationally, and few comparable examples exist.	5	Whilst a number of examples of this land type exist, the strength lies partly in the repeated occurrence within the region. They are characteristic of Northland and rare in a national sense.
Aesthetic Values		
Coherence The patterns of land cover and land use are largely in harmony with the underlying natural pattern of the landform of the area and there are no significant discordant elements of land cover or land use.	4	The unit displays a moderate level of coherence, with the forest clearly reflecting and emphasizing the underlying landform. The vegetation on the crest of the North River Forest ridge, and on the margins of the Waipu Caves Forest is more fragmented, however the natural patterns still display a level of coherence where vegetation has been retained on steeper valley sides and within gullies.

Diversity & Complexity The elements contributing to overall landscape character are diverse and complex (particularly in ecological terms) without creating disharmony.	5	The ranges display a high level of ecological diversity and complexity, with a variety of vegetation types reflecting the topography, drainage patterns and slope aspect.
Vividness Natural features and landscape are widely recognised across the community and beyond the local area and remain clearly in the memory; striking landscapes are symbolic of an area due to their recognisable and memorable qualities.	5	Views of the landscape from the southern quadrants are particularly striking with the scale of the hills clearly evident. This characteristic is heightened both by the contiguous vegetation cover and by the contrast between the steep southern ridge face and the flatness of the valley floor.
Naturalness How affected by human activity is the landscape? Does human activity intrude on the landscape? Eg. • Presence of buildings and associated built development. • Presence of infrastructure services. • Extent of indigenous forest cover. • Homogeneity of exotic vegetation. • Presence / extent of modified agricultural land use. • Strength of natural processes / ecological patterns. • Unmodified and legible physical relief and landform. • Presence of water.	4	The majority of the unit displays a high level of naturalness with minimal evident human activity. Past clearance for agriculture is evidenced by the diversity of the kanuka forest, but the contiguous character of the forest lends the ranges a high level of natural character when viewed from the southern quadrants. Fragmentation of the vegetation to the north and north east tends to diminish the apparent naturalness, but the linking fragments relate well to the underlying topographical and hydrological patterns. Vegetation types and patterns are clearly representative of topography, drainage patterns and slope aspect, and this suggests a high level of strength of natural processes.
Intactness Natural systems are intact and aesthetically coherent and do not display significant visual signs of human modification, intervention or manipulation, visually intact and highly aesthetic natural landscapes.	4	The unit displays a high level of intactness, particularly when viewed from within Helmsdale Valley, and from Waipu Caves Road.
Experiential Values		
Expressiveness The 'legibility' of the landscape. Natural features clearly demonstrate the natural processes that formed them.	4	The landscape displays a high level of legibility in terms of the hydrological processes that have shaped the valleys and ridges. The complexity and spatial arrangement of vegetation reflects the underlying topographical form of the ranges.
Sensory qualities (These are landscape phenomena as directly perceived and experienced by humans, such as the view of a scenic landscape, or the distinctive smell and sound of the foreshore).	3	The presence and strength of the landscape is most immediate and apparent when experienced from Helmsdale Road and Waipu Caves Road. From here the vertical scale of the feature is apparent, and the landform, and vegetation cover provides a strong sense of enclosure.
Transient Values The consistent and repeated occurrence of transient features that contributes to the character, qualities and values of the landscape; landscapes are widely recognised for their transient features and the contribution that these make to the landscape.	4	Strongly influenced by light and weather conditions, although light conditions on the southern side tend to be more muted in scope. Ridges create extremely distinctive silhouettes during dawn and dusk. Seasonal influences of flowering trees and other plants.
Remoteness / Wildness Does the landscape display a wilderness character, remote from and untouched by human presence? Eg. Sense of remoteness Accessibility Distance from built development	2	The roading network in the area provides reasonably easy access to the unit, and the prevailing sense from the margins is of a rural landscape. The proximity of built development also affects the sense of remoteness.

Shared and recognised values Natural features and landscape are widely known and valued by the immediate and wider community for their contribution to a sense of place leading to a strong community association with, or high public esteem for the place.	3	The ranges tend to be less widely recognised than the nearby Mareretu and Ruakaka Forests but form part of a wider sequence of landscape features.
Spiritual, cultural and historical associations Natural features and landscapes can be clearly and widely known and influenced by their connection to the spiritual, cultural and historical valued in the place and includes associative meanings and associative activities valued by the community. These can include both activities and meanings associative meanings are spiritual, cultural or social associative activities are patterns of acial activity that occur in particular parts of a landscape, for example, popular walking routes or fishing spots.		Consultation was initiated during the mapping process, but has not led to any feedback within the required period.

Rank scale between 1 (low) and 5 (high)

Land Types
Coastal cliffs / escarpment
Low escarpment
Bays and headlands
Beach
Dune complex
Reefs and islands
Estuarine / inlet
Open harbour
Coastal plain
Rolling hills
Steep hills; moderate to high relief
Ranges; high relief
Strongly rolling land
Low rolling land
Valley floors and flats
Plains
Volcanic cones
River mouth
Wetland
Watercourses
Lakes and water bodies

Photographs of unit



North River Forest from north looking south



Waipu Caves Forest