

Moir Forest and Wetlands

At a glance

TRC Reference: BD/9706	LENZ:	F5.2c Acutely threatened
Ecological District: Manawatu Plains	National:	Priority 1 – Threatened Land Environment
Land Tenure: Private		Priority 2 – Sand Dunes and Wetlands
Area(ha): 14.8	Regional:	Key Native Ecosystem
GPS: 1728794X & 5609960Y	Regional Ecosystem Loss:	At risk 20-30% left
Habitat: Forest Remnant/Wetland	Protection Status:	Local Government
Bioclimatic Zone: Lowland	Catchment:	Patea (343)
Ecosystem Type: MF7.3: Tawa, pukatea, podocarp forest		

General Description

The Moir forest and wetlands are on private land (14.89ha of native forest and 3.3ha of wetlands) located 11.5 km north of Patea. The site lies in the Manawatu Plains Ecological District. The forest has been modified in the past and successional vegetation remains. This tract of forest adjoins the Ngakotana Gorge KNE. Roper's Bush KNE and the Tarere Forest Extension are also nearby.

Ecological Features

Flora

The wetland vegetation predominantly consists of raupo, with islands of dryland species such as pate and mahoe. Older forest canopy is dominated by tawa and pukatea, with occasional miro and rewarewa. The regenerating canopy is predominantly pukatea in the wetter areas, mahoe and mamaku. The understory and ground cover is mainly dominated by kawakawa, mahoe, kiekie and parataniwha. Climbers and epiphytes are fairly common. Recent myrtle rust threats have elevated potentially vulnerable native flora species to 'Threatened' status. Notably, four of these new threatened species are present at this site including three species of rata and manuka.

Fauna

Notable native birds present include shining cuckoo, kereru, tui, bellbird, silvereye, grey warbler, fantail, kingfisher and harrier. Morepork will also be present. Also notable is the likely presence of the 'At Risk' North island Brown Kiwi (tracks to be confirmed). There is very good habitat for a range of other notable native species including reptiles and invertebrates.

Ecological Values

Ecological context - High	Connected to the tract of forest including the Ngakotana Gorge KNE. Enhances connectivity between Roper's Bush, Tarere Forest Extension and other nearby indigenous forest on private land.
Rarity and Distinctiveness - Medium	The wetland provides important habitat, likely to contain notable species such as the 'At Risk' Fernbird and notable fish species such as the 'At Risk' longfin eel. The forest is likely to contain the 'At Risk' North Island Brown Kiwi and other notable fauna species including reptiles and invertebrates. Also contains four newly listed 'Threatened' and 'At Risk' flora species due to potential vulnerability to myrtle rust including three species of rata and manuka.

Representativeness - Medium

Contains indigenous vegetation on 'Acutely Threatened' (F5.2c) LENZ environment. Less than 30% indigenous vegetation remains in these environments. Native biodiversity in these areas is greatly depleted and under threat from continued habitat fragmentation. The site is also an example of (MF7.3: Tawa, pukatea, podocarp forest (At Risk)) and in similar condition the Ngakotana Gorge KNE across the property boundary.

Sustainability - Positive

The wetland is in good vegetative condition, fully fenced, with margins being planted through the riparian scheme. New fencing is underway around one section of forest, with temporary fencing being erected around the other sections as and when required. Ecological processes will remain resilient to existing threats under appropriate management.

Other Management Issues

Habitat Modification - Medium

Historical land clearance is evident with the majority of the site covered in successional vegetation.

Herbivores - High

Cattle are excluded from the wetland and from segments of forest at a time with temporary fencing (new permanent fencing underway in places). Feral goats, pigs and fallow deer are however present through this tract of forest, which crosses multiple property boundaries and therefore will be difficult to control. Goat numbers are managed through occasional shooting by the landowner.

Predators - Medium

Predators including rodents, mustelids, possums, feral cats and hedgehogs will be having an impact on native species at the site. The site receives occasional possum control by the landowners. High possum numbers have the potential to impact on forest health.

Weeds - Low

Crack willow threatens the indigenous integrity of the wetland, but also provides excellent habitat and essential shading for inhabitants.

Gorse is present in and around both the wetland and forest habitats, but is being regularly controlled by the landowner.



Pete's Spot

At a glance

TRC Reference: BD/9711	LENZ:	F5.2b Acutely threatened
Ecological District: Egmont	Local:	Significant Natural Area
Land Tenure: Private	National:	Priority 1 – Threatened Land Environment
Area(ha): 6.17		Priority 4 – Threatened Species
GPS: 1701632X & 5674402Y	Regional:	Key Native Ecosystem
Habitat: Forest Remnant	Regional Ecosystem Loss:	Chronically threatened 10-20% left
Bioclimatic Zone: Semi-Coastal	Protection Status:	QEII Covenant
Ecosystem Type: WF13: Tawa, kohekohe, rewarewa, hinau, podocarp forest		Local Government
	Catchment:	Waiongana (394)

General Description

Pete's Spot is comprised of two forest fragments situated on private land in the New Plymouth District, 3.7 kilometres south of Bell Block. Dissected by Manutahi Rd, one site is located to the north of the road and the other to the south. Both sites border the Waiongana River and are located in the Egmont Ecological District. The remnants are protected by a QEII Covenant and are scheduled as Significant Natural Areas (SNA) under the NPDC District Plan. In total they make up 6.17 hectares of semi-coastal forest, classified as ecosystem type WF13 'Tawa, kohekohe, rewarewa, hinau and podocarp forest'. The forest site to the north is in good condition with a dense mix of canopy and understory species. The southern site is in fair condition with a mix of good canopy species however the understorey lacking. The two sites provide good stepping-stone habitats between other forest fragments and wetlands in the area.

Ecological Features

Flora

The canopy of the forest remnants is dominated by tawa, puriri, kohe kohe, rimu, kahikatea, pukatea and titoki, with occasional karaka, rewa rewa, mahoe, pigeonwood and mamaku tree ferns. The understorey is dense in places at the northern site, and includes mapau, nikau palms, kawakawa and coprosmas. Ground cover seedlings and ferns are present throughout the forest, along with vines and epiphytes, mosses, lichens and fungi. The southern site understorey is sparse in comparison.

Fauna

Native birds present include kereru, tui, silver-eye, grey warbler, fantail and morepork. Kingfisher, black shag, shining cuckoo and Australasian harrier also use the site as part of their wider habitat. There is good habitat for a range of reptiles and invertebrates.

Ecological Values

Sustainability - Positive	In good vegetative condition. Under appropriate management, the forest fragments can remain resilient and continue to contribute to the wider ecological context.
Representativeness - High	Contains indigenous vegetation on an 'Acutely Threatened' LENZ environment (F5.2b) and is of an ecosystem type (WF13: Tawa, kohekohe, rewarewa, hinau, podocarp forest) considered to be 'Chronically Threatened' as only 16% remains in the region.
Rarity and Distinctiveness - High	Contains good habitat for the 'At Risk' longfin eel and banded kokopu. 'Nationally Critical' ramarama and three "Nationally Threatened" rata species are also present.

Ecological Context - Medium

Enhances stepping-stone connectivity between fragmented indigenous habitat and Key Native Ecosystems in the area, such as Tegel Bush QEII, Lepperton Bush, Te Wairoa, Cardenica Woodlot, Tarurutangi Swamp and Townsend Road KNE's.

Other Management Issues

Possum Self-help

The fragments are situated within the 'Bell Block' zone of the regional Possum Self Help programme.

Habitat Modification - Low

Both fragments are legally protected with QEII covenants, and are securely fenced to exclude livestock.

Predators - High

Species that prey on native birds, lizards and invertebrates include rodents (rats & mice) and hedgehogs, along with possums, mustelids and feral cats roving the wider landscape.

Weeds - High

Weeds are currently present in localised areas and present the main priority for management in the short term. In the northern fragment *Tradescantia* is the priority species for control. In the southern fragment woolly nightshade, *tradescantia*, cherry and holly form the priority species for control.

Herbivores - Medium

Possums will be present in low densities, and also prey on insects and chicks, but present greatest threat to vegetation through browsing. Stock are excluded and there are no goats or pigs in the area however the southern fragment borders a deer farm.

