

Ancell Farms

At a glance (last updated: January 2016)	
TRC reference: BD/9557	Ecological district: North Taranaki
Other reference:	LENZ environment: F7.2a (1.8ha), F1.1b (5.5ha)
Land tenure: Private	Protection status: A, B, C
GPS: E1721719 N5649996	Area: 7.3ha

Location

The Ansell Farms remnant is located on private land approximately 12km north east of Stratford in central Taranaki in the North Taranaki ecological District.

General description

The area consists of a mainly east facing hill slope of cutover native forest. The forest canopy is mainly intact and is dominated by tawa (*Beilschmiedia tawa*). The lower canopy, understory and ground cover is recovering significantly since the recent exclusion of stock. The site is in close proximity to other Key Native Ecosystems including the Waiwiri Wetlands and other protected habitats in the area.

Ecological features

Flora

The bush remnant forest canopy is dominated by tawa (*Beilschmiedia tawa*) with occasional large pukatea (*Laurelia novae-zelandiae*) and rewarewa (*Knightia excelsa*). Younger rimu (*Dacrydium cupressinum*) and miro (*Prumnopitys ferruginea*) are also present in some areas. The lower canopy mainly contains pigeonwood (*Hedycarya arborea*) and mahoe (*Melicytus ramiflorus subsp. ramiflorus*). The understory and ground cover is recovering significantly since the recent exclusion of stock. The area partly contains indigenous vegetation associated with an 'At Risk' habitat under LENZ environment F7.2a. Remnants of indigenous habitats in At Risk environments are rare and are important refuges for native species.

Fauna

Native birdlife recorded in and around the Rahui KNE areas include the New Zealand pigeon (*Hemiphaga novaeseelandiae*), grey warbler (*Gerygone igata*), fantail (*Rhipidura fuliginosa*), tui (*Prothemadera novaeseelandiae*), silvereye (*Zosterops lateralis*) and shining cuckoo (*Chrysococcyx lucidus lucidus*). Good habitat exists for the At Risk and regionally distinctive striped skink (*Oligosoma striatum*) and other notable fauna may be present.

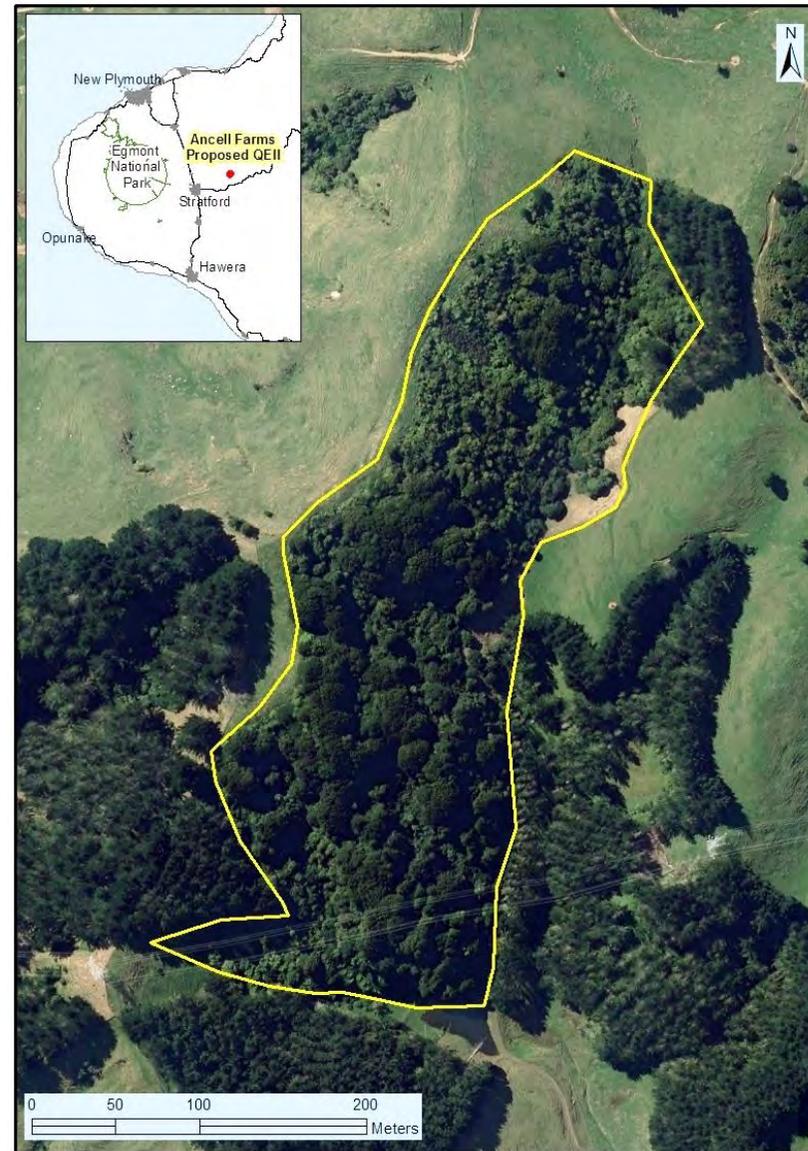
Ecological values

Ecological values	Rank	Comment
Rarity and distinctiveness	Medium	Contains good habitat for the 'At Risk' and 'Regionally Distinctive' striped skink (<i>Oligosoma striatum</i>).
Representativeness	Medium	Contains vegetation associated with 'At Risk' LENZ environment. (F7.2a)
Ecological context	High	Provides additional habitat and greater connectivity with other Key Native Ecosystems such as the Waiwiri Wetlands and other protected habitats in this area.
Sustainability	Positive	Key ecological processes still influence the site and with appropriate management, it can remain resilient to existing or potential threats. The site will have the additional benefit of being formally protected.

Threats to ecological values	Potential threat	Comment
Pest animals	High	Possoms, cats, mustelids, hedgehogs and rodents.
Weeds	Medium	Scattered areas of barberry, Himalayan honeysuckle and Mexican daisy.
Habitat modification	Low	The area is fenced.

Site protection measures addressing potential and actual threats are as follows:

Site protection	Yes/No	Description
A Public ownership or formal agreement	Yes	The landowner is currently working with QEII towards a covenant for the site.
B Regulatory protection by local government	Yes	General regional or district rules might apply.
C Active protection	Yes	The landowner undertakes occasional pest animal control.



Berridge Twin Bush

At a glance (last updated: November 2015)

TRC reference:	BD/9553	Ecological district:	Egmont
Other reference:		LENZ environment:	F5.2b
Land tenure:	Private	Protection status:	A, B, C
GPS:	E 1687870 , N 5670653	Area:	4.48 ha

Location

Berridge Twin Bush is located on privately owned land between Sealy and Hurford roads, 1.6km south of Omata. The site is in the Egmont ecological district.

General description

Berridge Twin Bush consists of a semi-coastal tawa forest remnant located near the western boundary of the Herekawe catchment and a small remnant of Kahikatea swamp forest and associated regenerating wetland area. The remnant lies in close proximity to other Key Native Ecosystems in the area, including Omata School Bush, Pukiekie and Omata Bush.

Ecological features

Flora

The Twin Bush forest remnant is a good example of semi-coastal tawa forest and is located in an 'Acutely Threatened' LENZ environment (F5.2b, less than 10% indigenous forest remaining). The main canopy is a mix of Puriri (*Vitex lucens*), Tawa (*Beilschmiedia tawa*), Kohekohe (*Dysoxylum spectabile*), Rimu (*Dacrydium cupressinum*), Pukatea (*Laurelia novae-zelandiae*), Rewarewa (*Knightia excelsa*), Miro (*Prumnopitys ferruginea*) and Matai (*Prumnopitys taxifolia*) and is generally in good condition. The understorey and ground cover is in good condition and is made up of a wide number of shrub species including Kawakawa (*Piper excelsum*), Kanono (*Coprosma grandifolia*), and *Coprosma areolata* along with a wide range of ferns. Also of note is a small area containing Swamp maire (*Syzygium maire*) and the fern *Deparia petersenii subsp. congrua* (both rated Regionally Distinctive).

Fauna

Native birdlife recorded in and around Twin Bush include the New Zealand pigeon (*Hemiphaga novaeseelandiae*), grey warbler (*Gerygone igata*), fantail (*Rhipidura fuliginosa*), tui (*Prosthemadera novaeseelandiae*) and morepork (*Ninox novaeseelandiae*). Native Freshwater fish include banded kokopu (*Galaxias fasciatus*) and longfin eel (*Anguilla dieffenbachii*). Excellent habitat exists for reptiles, invertebrates and freshwater fish.

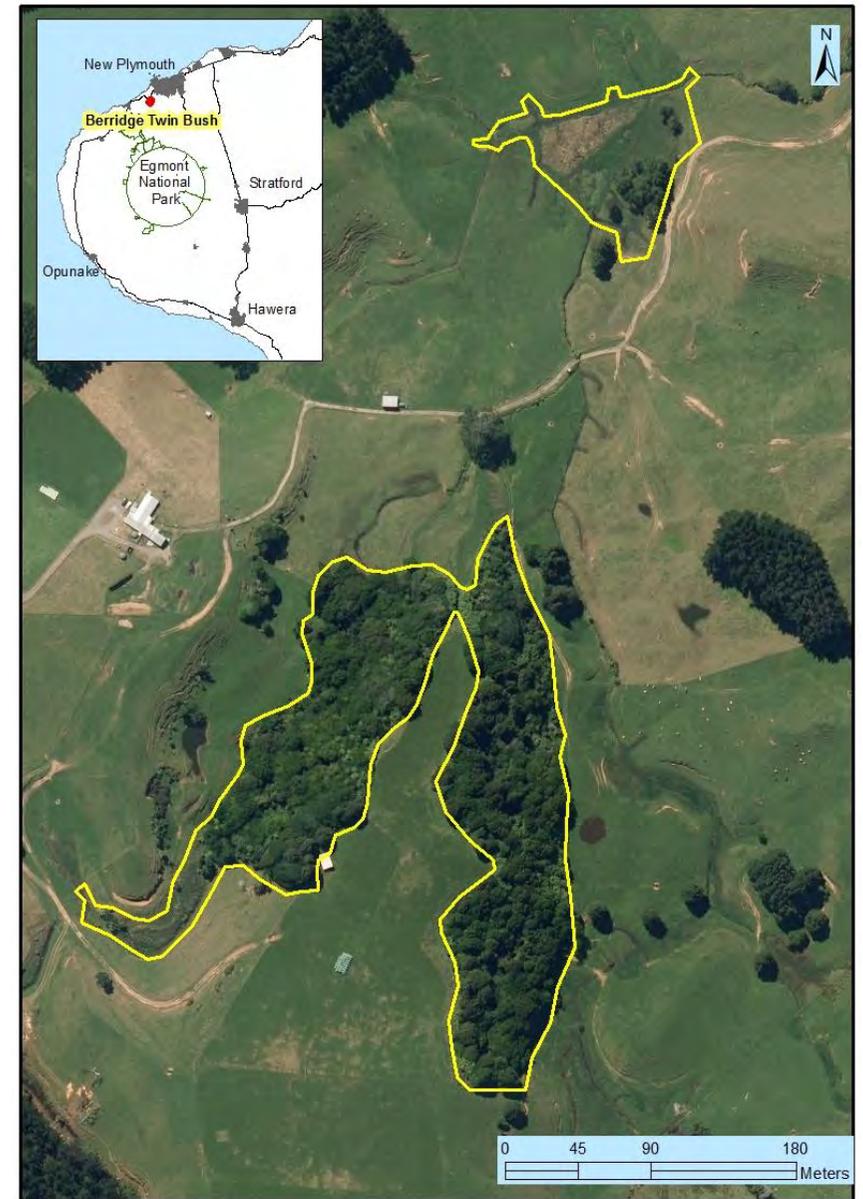
Ecological values

Ecological values	Rank	Comment
Rarity and distinctiveness	High	Contains the 'Regionally Distinctive' swamp maire (<i>Syzygium maire</i>), banded kokopu (<i>Galaxias fasciatus</i>) and the fern <i>Deparia petersenii subsp. congrua</i> .
Representativeness	High	Contains indigenous vegetation that is poorly represented in Taranaki and classified as F5.2b - an 'acutely threatened' LENZ environment.
Ecological context	Medium	The remnant provides connectivity to other Key Native Ecosystems nearby including Omata School Bush, Pukiekie and Omata Bush.
Sustainability	Positive	Key ecological processes still influence the site. Under appropriate management it will remain resilient to existing and potential threats.

Threats to ecological values	Potential threat	Comment
Pest animals	High	Possums, cats, rats, hedgehogs and mustelids.
Weeds	High	Holly, woolly nightshade, blackberry, brush wattle and Chinese privet.
Habitat modification	Low	The western side of the western remnant still shows evidence of grazing as it has recently been fenced.

Site protection measures addressing potential and actual threats are as follows:

Site protection		Yes/No	Description
A	Public ownership or formal agreement	Yes	Site is protected by a QEII covenant.
B	Regulatory protection by local government	Yes	General regional or district rules might apply.
C	Active protection	Yes	Site is within the self help possum control area and receives regular pest animal control for possums.



Ingram's QEII

At a glance (last updated: February 2016)			
TRC reference:	BD/9558	Ecological district:	North Taranaki
Other reference:		LENZ environment:	F5.2a (6.3 ha) F1.1b (20.5 ha)
Land tenure:	Private	Protection status:	A, B, C
GPS:	E 1718320 , N 5676679	Area:	26.7 ha

Location

Ingram's QEII is located on privately owned land on Mataro Road approximately 6 km South of Onaero in the North Taranaki ecological district.

General description

Ingrams QEII is comprised of one side of a forested gully in the Onaero catchment. The area is in the process of being covenanted and is in close proximity to other Key Native Ecosystems in the area, including Kotare bush, Hickman road (Luxton), Tikorangi Whitehead, and Mangahewa.

Ecological features

Flora

A portion of the site is located on a land environment classified as 'Acutely Threatened' (less than 10% indigenous vegetation remains in these environments). The forest canopy is dominated by tawa (*Beilschmiedia tawa*) and rewarewa (*Knightia excelsa*) close to the ridges with occasional large pukatea (*Laurelia novae-zelandiae*), puriri (*Vitex lucens*), and younger rimu (*Dacrydium cupressinum*) and miro (*Prumnopitys ferruginea*) present in some areas. The flora of the remnant is reasonably diverse but shows signs of dieback due to goat and possum browse. Vegetation in the steep gully is in better condition than on the ridges and the regionally distinctive king fern (*Ptisana salicina*) was found alongside the main stream. The understorey is made up of a wide number of shrub species including kawakawa (*Macropiper excelsum*), kanono (*Coprosma grandifolia*), tree daisy (*Olearia rani*), and NZ gloxinia (*Rhabdothamnus solandri*) along with a wide range of ferns. Of note is the presence of the At Risk and regionally

distinctive king fern (*Ptisana salicina*) as well as the regionally distinctive fern *Deparia* (*Deparia petersenii subsp. congrua*).

Fauna

Native birdlife recorded in and around the site includes the New Zealand pigeon (*Hemiphaga novaeseelandiae*), grey warbler (*Gerygone igata*), fantail (*Rhipidura fuliginosa*), tui (*Prothemadera novaeseelandiae*), bellbird (*Anthornis melanura*), kingfisher (*Halcyon sancta vagans*), and western North Island brown kiwi (*Apteryx mantelli*).

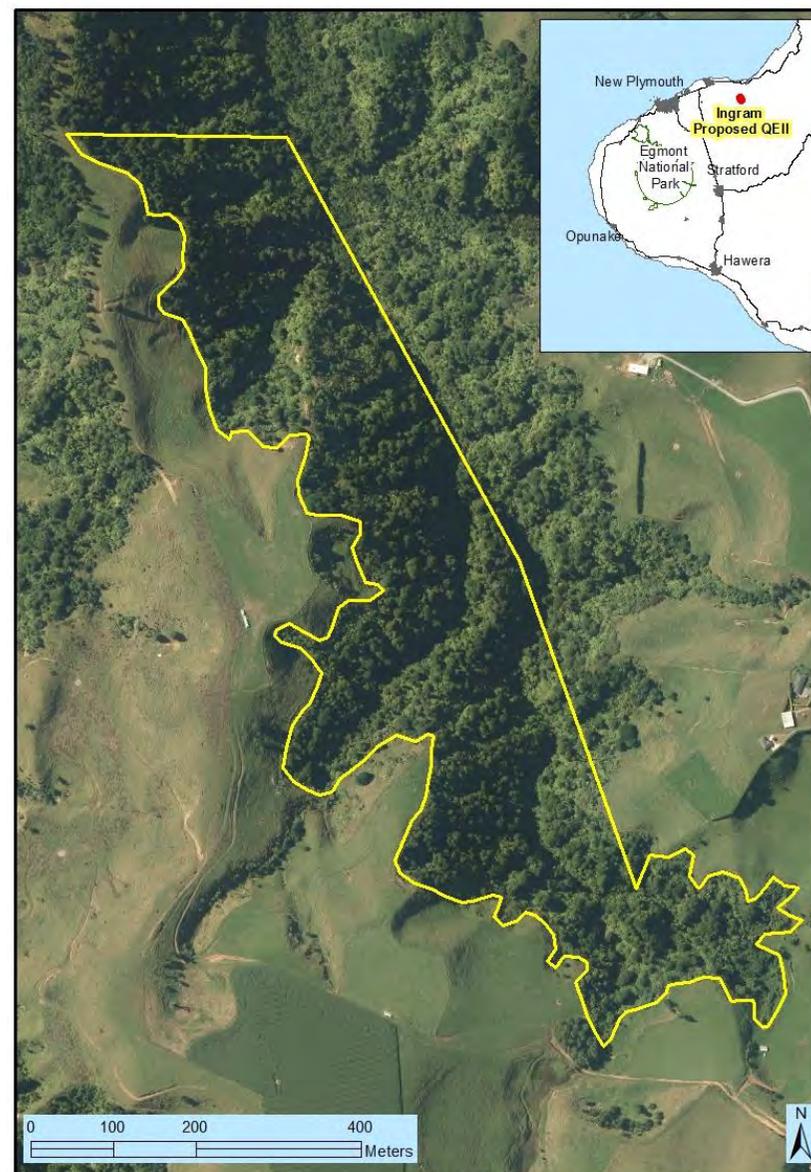
Ecological values

Ecological values	Rank	Comment
Rarity and distinctiveness	Medium	Contains the 'Regionally Distinctive' ferns king fern (<i>Ptisana salicina</i>) and <i>Deparia</i> (<i>Deparia petersenii subsp. congrua</i>) and provides habitat for the western North Island brown kiwi (<i>Apteryx mantelli</i>) (threatened, nationally vulnerable)
Representativeness	Medium	Contains vegetation on a land environment classified as 'Acutely Threatened' (F5.2a).
Ecological context	Medium	Provides additional habitat and greater connectivity with other Key Native Ecosystems in this area such as Kotare bush, Hickman road (Luxton), Tikorangi Whitehead, and Mangahewa.
Sustainability	Positive	Key ecological processes still influence the site and with appropriate management, it can remain resilient to existing or potential threats. As of 2016 the site is in the process of being formally protected through QEII.

Threats to ecological values	Potential threat	Comment
Pest animals	High	Possums, goats, cats, mustelids, hedgehogs and rodents.
Weeds	Medium	Scattered areas of pampas, Mexican daisy, Himalayan honeysuckle, blackberry, and gorse mainly confined to the bush margin.
Habitat modification	Low	The site is fenced and the fence is due to be upgraded as part of the covenanting process.

Site protection measures addressing potential and actual threats are as follows:

Site protection	Yes/No	Description
A Public ownership or formal agreement	Pending	Site is in the process of being protected by a QEII covenant.
B Regulatory protection by local government	Yes	General regional or district rules might apply.
C Active protection	Yes	Property lies outside the self help possum control boundary. Owners do some pest control and are keen for assistance to deal with pest animal issues. Most of the area has been fenced off and retired.



King Edward Park & Carrington Walkway

At a glance (last updated: September 2015)			
TRC reference:	BD/9550	Ecological district:	Egmont
Other reference:	King Edward Park	LENZ environment:	F5.2a
Land tenure:	Stratford District Council	Protection status:	A, B, C
GPS:	E 1710221 N 5644515	Area:	24.7 ha

Location

The King Edward Park and Carrington Walkway Key Native Ecosystem is mainly located on Stratford District Council land within the Stratford township in central Taranaki.

General description

The King Edward Park and Carrington Walkway Key Native Ecosystem comprises of a mainly native forest remnant on flat river terraces and extensive picturesque riparian strips of mainly native vegetation along the Patea River and Paetahi Stream. The forest remnant is generally in good condition although weed threats are present. The main forest understorey is intact and contains dense areas of native saplings, seedlings and ferns. Planted exotic and non resident native vegetation also occur throughout the area. Forest remnants such as these contribute to forest connectivity in an agricultural landscape such as the Egmont ring plain.

Ecological features

Flora

The main forests natural canopy is comprised of tawa (*Beilschmiedia tawa*), totara (*Podocarpus totara*), miro (*Prumnopitys ferruginea*), kamahi (*Weinmannia racemosa*), kahikatea (*Dacrycarpus dacrydioides*) and rimu (*Dacrydium cupressinum*). The forest understorey is in good condition and includes lacebark (*Hoheria sexstylosa*), pate (*Schefflera digitata*), mahoe (*Meliclytus ramiflorus*), climbing rata (*Metrosideros diffusa*, *M. fulgens*, *M. perforata*), kiekie (*Freycinetia baueriana* subsp. *banksii*) and *Asplenium* and *Blechnum* ferns. King fern (*Ptisana salicina*) is present although has been planted in this area.

Fauna

The KNE area provides habitat for resident native forest birds such as the grey warbler (*Gerygone igata*) and fantail (*Rhipidura fuliginosa*). The forest is also part of a wider foraging area for more mobile native birds in the area including New Zealand pigeon (*Hemiphaga novaeseelandiae*), tui (*Prothemadera novaeseelandiae*), bellbird (*Anthornis melanura*), and silvereye (*Zosterops lateralis*). Notable birds recently recorded in the area include the bush falcon (*Falco novaeseelandiae* "bush") North Island rifleman (*Acanthisitta chloris granti*) and black shag (*Phalacrocorax carbo novaehollandiae*). The Patea River and Paetahi Stream in the KNE area provide good habitat for the longfin eel (*Anguilla dieffenbachia*) and other native fish species including galaxiids and bullies.

Ecological values

Ecological values	Rank	Comment
Rarity and distinctiveness	Medium	Contains the Threatened, Nationally Vulnerable bush falcon (<i>Falco novaeseelandiae</i> "bush"), the At Risk kingfern (<i>Ptisana salicina</i>), North Island rifleman, black shag (<i>Phalacrocorax carbo novaehollandiae</i>) and longfin eel (<i>Anguilla dieffenbachia</i>). Also contains the Regionally Distinctive swamp maire (<i>Syzygium maire</i>).
Representativeness	High	Contains indigenous vegetation classified as an 'Acutely Threatened' (F5.2a) LENZ environment.
Ecological context	Medium	Enhances connectivity between fragmented indigenous habitats such as the Kahouri Bush KNE.
Sustainability	Positive	Key ecological processes still influence the site and with appropriate management, it can remain resilient to existing or potential threats.

Threats to ecological values	Potential threat	Comment
Pest animals	Medium	Possums, cats, mustelids, hedgehogs and rodents.
Weeds	High	Old mans beard, cherry, ivy, Himalayan honeysuckle, wandering jew, convolvulus, tree strawberry, sycamore, etc.
Habitat modification	Low	The habitat is already partially modified with planted exotic and non resident native vegetation and established walkways. The area is securely fenced with no other immediate threats.

Site protection measures addressing potential and actual threats are as follows:

Site protection		Yes/No	Description
A	Public ownership or formal agreement	Yes	The area is District Council land and partly DOC esplanade reserve.
B	Regulatory protection by local government	Yes	General regional or district rules might apply.
C	Active protection	Yes	Existing possum control programme and weed control in some areas.



Rahui

At a glance (last updated: January 2016)	
TRC reference: BD/9556	Ecological district: Matemateaonga
Other reference:	LENZ environment: Bush: F7.2a (9ha) Wetland: F7.2a (3.9ha)
Land tenure: Private	Protection status: A, B, C
GPS: E1721643 N5637570 (Bush) E1722226 N5637712 (Wetland)	Area: 12.9ha

Location

The Rahui KNE is located on private land approximately 10km east of Eltham in central Taranaki in the Matemateaonga ecological District.

General description

The Rahui KNE area consists of two distinctly different habitat types. The wetland area (3.9ha) is situated in the upper catchment of the Makaria stream within the Patea River catchment. It contains occasional areas of native vegetation, patches of exotic vegetation, dry banks, spring heads and pasture. The bush remnant (9ha) is mainly made up of regenerating native scrub with some older emergent forest present in some areas. The understory and ground cover is sparse in areas where goats have access although some inaccessible areas are in better condition. Both areas are currently being investigated for protection and retirement and will respond well once fenced. The Rahui KNE is in close proximity to other Key Native Ecosystems in the area including Ngaere Swamp Forests and Rotokare Scenic Reserve KNE's.

Ecological features

Flora

Vegetation in the wetland is limited to raupo (*Typha orientalis*), willow, carex, native ferns, native rushes, native grasses and introduced pasture. The bush remnant is mainly made up of manuka (*Leptospermum scoparium* var. *scoparium*), kanuka (*Kunzea robusta*), tree ferns, pigeonwood (*Hedycarya arborea*) and mahoe (*Meliclytus ramiflorus* subsp. *ramiflorus*).

Tawa (*Beilschmiedia tawa*), pukatea (*Laurelia novae-zelandiae*) and rewarewa (*Knightia excelsa*) are emergent in some areas. Both areas fall within the 'At Risk' LENZ environment F7.2a. Remnants of indigenous habitats in At Risk environments are rare and are important refuges for native species.

Fauna

Native birdlife recorded in and around the Rahui KNE areas include the New Zealand pigeon (*Hemiphaga novaeseelandiae*), grey warbler (*Gerygone igata*), fantail (*Rhipidura fuliginosa*), tui (*Prosthemadera novaeseelandiae*), and silvereye (*Zosterops lateralis*). The shortfin eel (*Anguilla australis*) is present in the upper ponded wetland area. Good habitat exists for the regionally distinctive striped skink (*Oligosoma striatum*) and other notable fauna may be present.

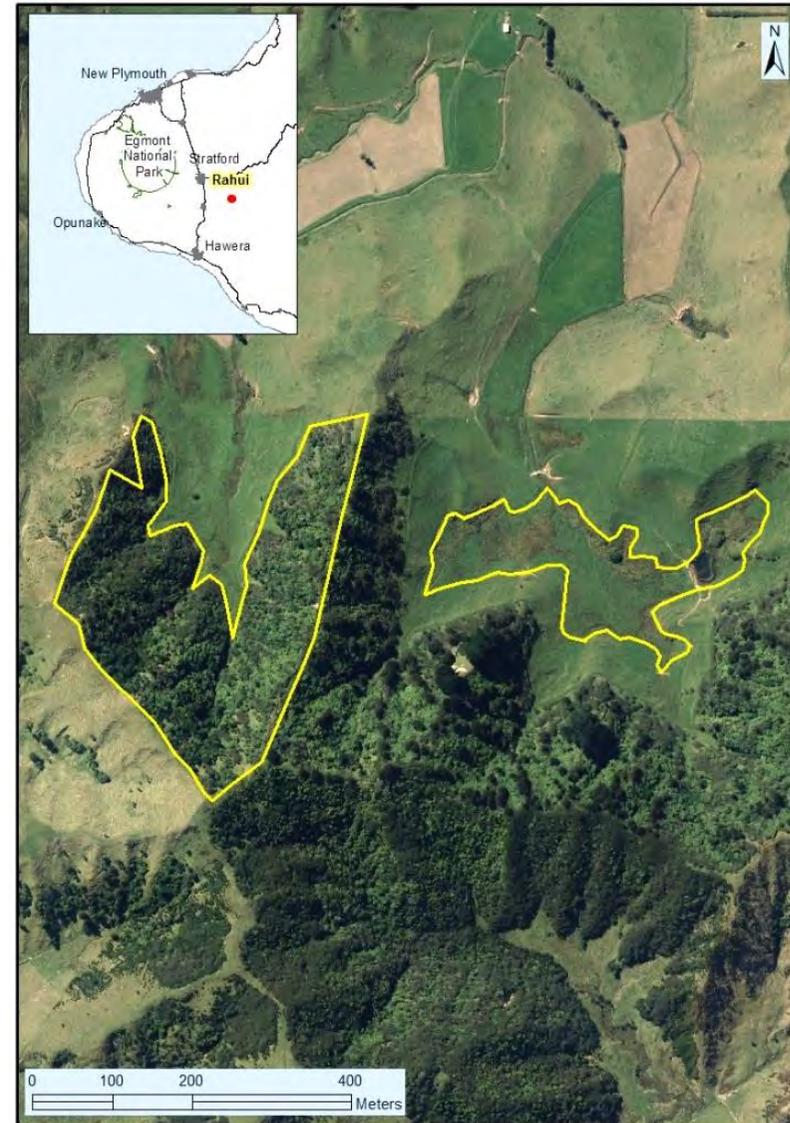
Ecological values

Ecological values	Rank	Comment
Rarity and distinctiveness	Medium	Contains good habitat for the 'At Risk' and 'Regionally Distinctive' striped skink (<i>Oligosoma striatum</i>).
Representativeness	Medium	Contains vegetation associated with (F7.2a) 'At Risk' LENZ environment.
Ecological context	High	Provides additional habitat and greater connectivity with other Key Native Ecosystems in this area such as the Ngaere Swamp Forests and Rotokare Scenic Reserve.
Sustainability	Positive	Key ecological processes still influence the site and with appropriate management, it can remain resilient to existing or potential threats. The site will have the additional benefit of being formally protected.

Threats to ecological values	Potential threat	Comment
Pest animals	High	Goats, possums, cats, mustelids, hedgehogs and rodents.
Weeds	Medium	Scattered areas of barberry, broom, heath and ragwort.
Habitat modification	Low	The covenanted areas will be securely fenced.

Site protection measures addressing potential and actual threats are as follows:

Site protection		Yes/No	Description
A	Public ownership or formal agreement	Yes	The landowner is currently working with QEII towards a covenant for both habitats.
B	Regulatory protection by local government	Yes	General regional or district rules might apply.
C	Active protection	Yes	The landowner undertakes occasional pest animal control.



Skiltons Bush

At a glance (last updated: February 2016)			
TRC reference:	BD/9559	Ecological district:	Matemateaonga
Other reference:		LENZ environment:	F1.3a (35.6 ha) F1.3b (84.1 ha) F5.2c (3.4 ha)
Land tenure:	Private	Protection status:	A, B, C
GPS:	E1755174 N5593376	Area:	123.1 ha

Location

The Skiltons Bush KNE is located on private land 6km south east of Waitotara in South Taranaki within the Matemateaonga Ecological District.

General description

This 123.1 hectare native forest remnant provides habitat for a range of native terrestrial species and is linked to other existing native and exotic habitats in the area. The site is situated in a long gully in the upper end of the Ohie stream in the lower Waitotara River catchment. Evidence of uplifted marine terrace can be seen in exposed banks with sediment, shells and shell rock being present. The site provides good connectivity to other Key Native Ecosystems and habitats in this area including the Waitotara Wharangi Block and Lake Waikato KNEs.

Ecological features

Flora

The bush canopy in the gully is mainly dominated by regenerating species such as mahoe (*Melicytus ramiflorus subsp. ramiflorus*), pigeonwood (*Hedycarya arborea*), lancewood (*Pseudopanax crassifolius*), lemonwood (*Pittosporum eugenioides*), kohuhu (*Pittosporum tenuifolium*) and tree ferns although small areas of old tawa (*Beilschmiedia tawa*) forest are present in places. Of note is the presence of the 'Regionally Distinctive' ngaio (*Myoporum laetum*) and whau (*Entelea arborescens*) on the steep dry faces of the south side of the gully. Some areas of browse are present in the understory although more intact areas are also present. Ferns are reasonably diverse although sparse in places.

Fauna

Notable fauna within the KNE includes the 'Nationally Vulnerable' New Zealand falcon (*Falco novaeseelandiae*) and potentially Western North Island brown kiwi (*Apteryx mantelli*). A number of other threatened or at risk fauna species are also likely to be present including native bats, freshwater fish and reptiles.

The KNE area also contains populations of other forest birds including the New Zealand pigeon (*Hemiphaga novaeseelandiae*), grey warbler (*Gerygone igata*), fantail (*Rhipidura fuliginosa*), tui (*Prosthemadera novaeseelandiae*), bellbird (*Anthornis melanura melanura*), kingfisher (*Todiramphus sanctus vagans*) and shining cuckoo (*Chrysococcyx lucidus lucidus*).

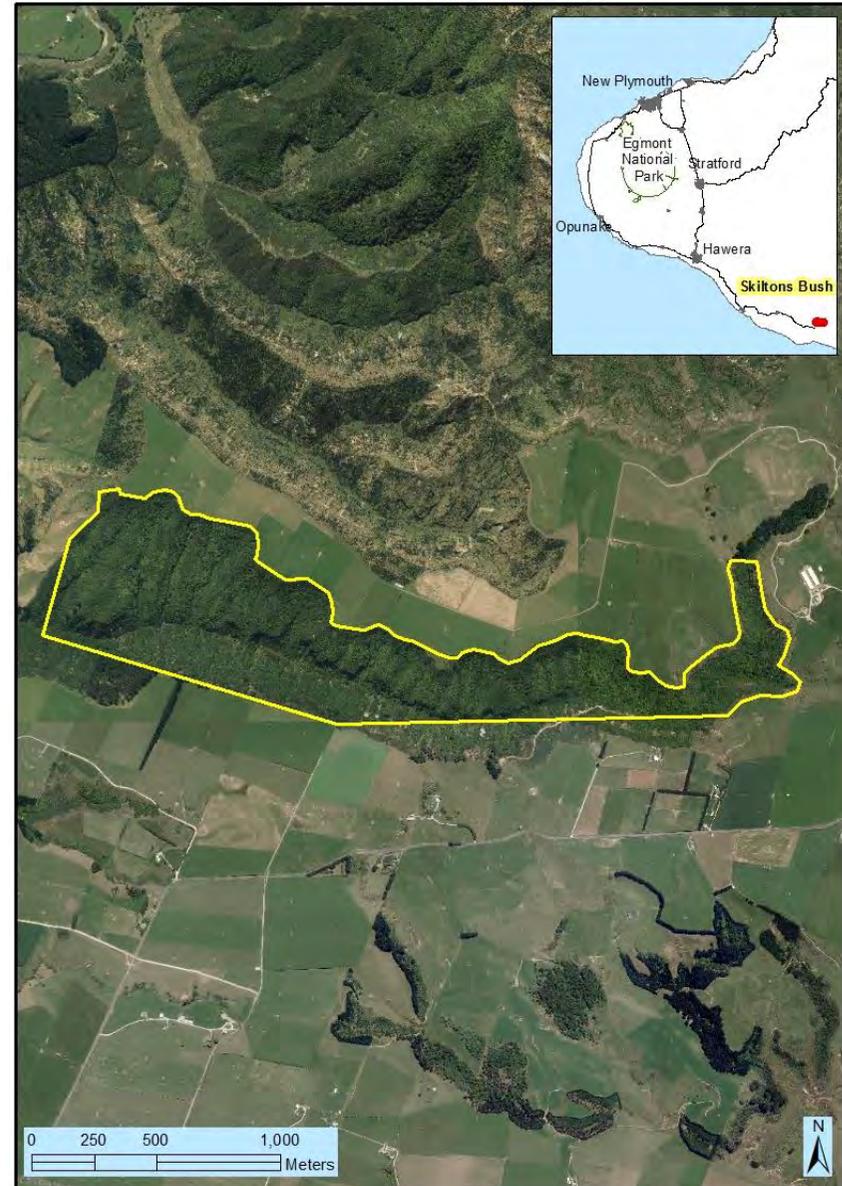
Ecological values

Ecological values	Rank	Comment
Rarity and distinctiveness	High	Contains threatened and at risk species such as the Nationally Vulnerable New Zealand falcon (<i>Falco novaeseelandiae</i>) and potentially the Western North Island brown kiwi (<i>Apteryx mantelli</i>). Also contains regionally distinctive flora species such as ngaio (<i>Myoporum laetum</i>) and whau (<i>Entelea arborescens</i>).
Representativeness	Low	Contains an area of indigenous vegetation classified as an 'At Risk' LENZ environment (F1.3a). The remaining greater areas are classified as 'Less reduced, better protected' LENZ environments.
Ecological context	High	Provides additional habitat and greater connectivity with two KNEs and other habitats in this area.
Sustainability	Positive	Key ecological processes still influence the site and with appropriate management, it can remain resilient to existing or potential threats.

Threats to ecological values	Potential threat	Comment
Pest animals	High	Possums, cats, mustelids, hedgehogs, rodents, goats, fallow deer, and pigs.
Weeds	Medium	Gorse and ragwort.
Habitat modification	Medium	Currently fenced and stock are excluded from the area.

Site protection measures addressing potential and actual threats are as follows:

Site protection		Yes/No	Description
A	Public ownership or formal agreement	Yes	The landowners are currently working with the QEII Trust toward a covenant for this area.
B	Regulatory protection by local government	Yes	General regional or district rules might apply.
C	Active protection	Yes	The landowner undertakes pest animal control (goats and possums).



Team Tong Tiger Territory

At a glance (last updated: February 2016)	
TRC reference: BD/9544	Ecological district: Egmont
Other reference: QEII 5/06/357	LENZ environment: F5.2c
Land tenure: Private	Protection status: A, B, C
GPS: Forest Block : E 1704708 N 5622821 Wetland: E 1704705 N 5622485	Area: 4.5 ha

Location

The Team Tong Tiger Territory QEII covenants are located on private land approximately 5km west of Normanby in South Taranaki.

General description

The covenanted areas consist of a lowland forest remnant on a river terrace and an oxbow wetland nearby. The forest remnant covenant is immediately adjacent to the Waingongoro River and includes the steep banks above the terrace. The oxbow wetland covenant is a river bed remnant of the Waingongoro River and the covenant includes the steep banks to the west of the wetland.

Ecological features

Flora

The forest covenanted areas contain a good example of lowland forest (classified as an 'Acutely Threatened' indigenous vegetation type under LENZ environment F5.2c), with the canopy consisting mainly of tawa (*Beilschmiedia tawa*), occasional kahikatea (*Dacrycarpus dacrydioides*) and rewarewa (*Knightsia excelsa*). The wetland area is dominated by raupo (*Typha orientalis*) although the steep west margin contains forest species such as tawa, karaka (*Corynocarpus laevigatus*) and kahikatea (*Dacrycarpus dacrydioides*). Notably, the Regionally Distinctive ngaio (*Myoporum laetum*) is present at these covenants.

Fauna

Native birdlife recorded in and around the covenanted areas include the grey warbler (*Gerygone igata*), fantail (*Rhipidura fuliginosa*), tui (*Prosthemadera novaeseelandiae*), silvereye (*Zosterops lateralis*) and Australasian harrier (*Circus approximans*).

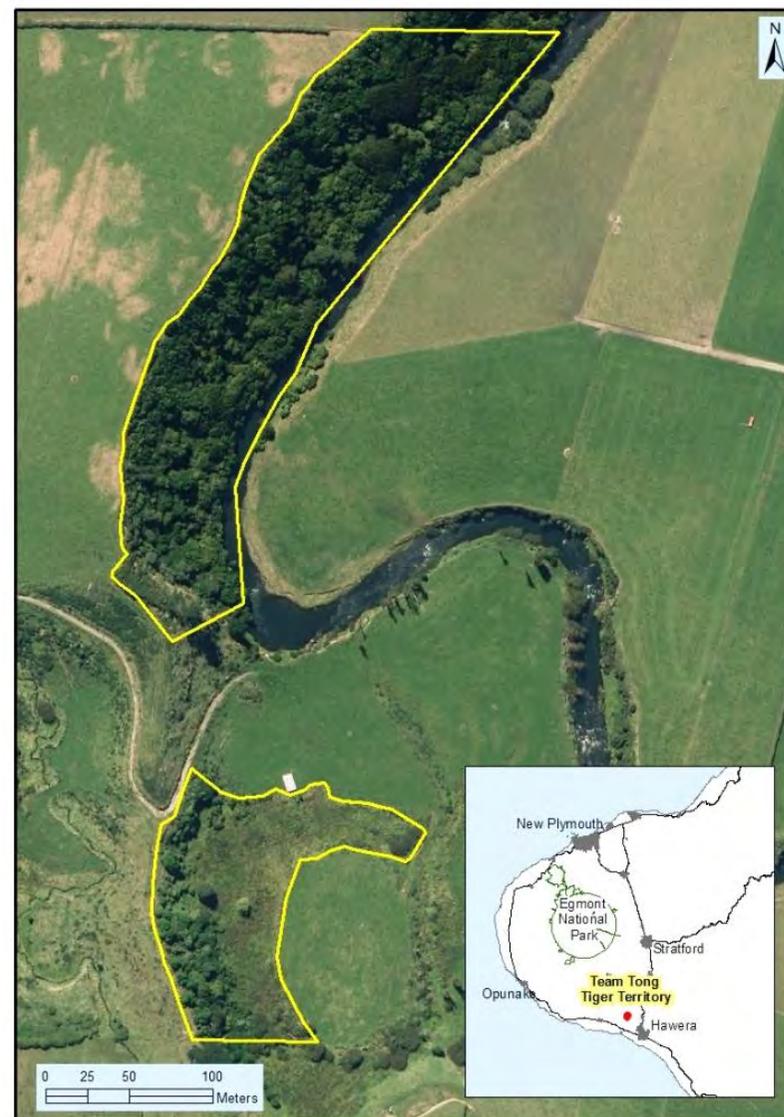
Ecological values

Ecological values	Rank	Comment
Rarity and distinctiveness	Medium	Contains the 'Regionally Distinctive' ngaio (<i>Myoporum laetum</i>).
Representativeness	High	Contains indigenous vegetation classified as 'Acutely Threatened' (F5.2c) LENZ environment.
Ecological context	Medium	Provides habitat for native species in an area of well developed farmland and provides a good patch of riparian vegetation along the Waingongoro River. Provides some connectivity with other Key Native Ecosystems in the wider area such as the Fraser Road KNE.
Sustainability	Positive	Key ecological processes still influence the site and with appropriate management, it can remain resilient to existing or potential threats. The site has the additional benefit of being formally protected.

Threats to ecological values	Potential threat	Comment
Pest animals	Medium	Possums, cats, mustelids, hedgehogs and rodents.
Weeds	High	Moderate areas of old man's beard and gorse. Occasional areas of blackberry, pampas, willow and wandering jew.
Habitat modification	Medium	Currently fenced although wetland fence requires maintenance.

Site protection measures addressing potential and actual threats are as follows:

Site protection	Yes/No	Description
A Public ownership or formal agreement	Yes	Covered by a QEII covenant.
B Regulatory protection by local government	Yes	General regional or district rules might apply.
C Active protection	Yes	Property lies within Self Help possum control boundary.



Tongaporutu Grazing Co Bush

At a glance (last updated: February 2016)			
TRC reference:	BD/9560	Ecological district:	North Taranaki
Other reference:		LENZ environment:	F1.1b (36.8 ha) F5.2a (1.5 ha) F7.2a (19.4)
Land tenure:	Private	Protection status:	A, B, C
GPS:	E1748508 N5693581	Area:	57.7 ha

Location

The Tongaporutu Grazing Co Bush KNE is located on private land 10kms south east of Ahititi in North Taranaki within the North Taranaki Ecological District.

General description

The KNE areas consist of a range of habitats including long fingers of regenerating scrub in gullies on a tableland well above the main river valley and a large gully of regenerating forest with areas of old forest and steep regenerating faces. The site is also connected to existing native habitats in the area. The site provides good connectivity to other Key Native Ecosystems and habitats in this area including the Hutawai Conservation Area and Moki/Makino Conservation Area KNEs. Areas of 'Acutely Threatened' and 'At Risk' land environments (LENZ) are present.

Ecological features

Flora

The old forest area of the large gully contains tawa (*Beilschmiedia tawa*), rimu (*Dacrydium cupressinum*), rewarewa (*Knightia excelsa*), miro (*Prumnopitys ferruginea*), black maire (*Nestegis cunninghamii*), pukatea (*Laurelia novae-zelandiae*), hinau (*Elaeocarpus dentatus*) and totara (*Podocarpus totara var. totara*). The canopy in regenerating areas contains species such as manuka (*Leptospermum scoparium var. scoparium*), mahoe (*Melicactus ramiflorus subsp. ramiflorus*), pigeonwood (*Hedycarya arborea*), lancewood (*Pseudopanax crassifolius*), tree daisy (*Olearia rani*), and tree ferns. Groundcover ferns are reasonably diverse.

Fauna

Notable fauna within the covenant is likely to include the 'Nationally Vulnerable' Western North Island brown kiwi (*Apteryx mantelli*) and New Zealand falcon (*Falco novaeseelandiae*). A number of other threatened or at risk fauna species are also likely to be present including native bats, fish and reptiles.

The covenanted area also contains populations of other forest birds including the New Zealand pigeon (*Hemiphaga novaeseelandiae*), grey warbler (*Gerygone igata*), fantail (*Rhipidura fuliginosa*) and tui (*Prosthemadera novaeseelandiae*).

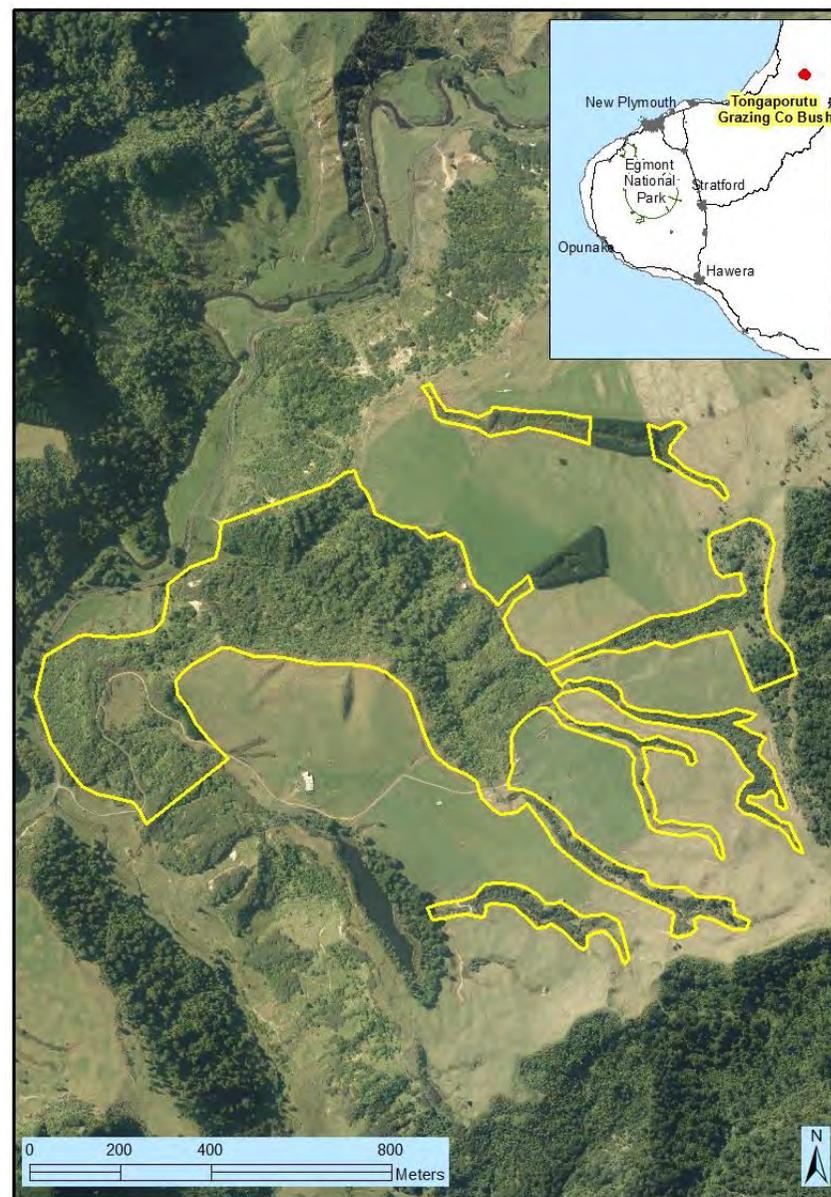
Ecological values

Ecological values	Rank	Comment
Rarity and distinctiveness	High	Likely to contain threatened and at risk species such as the Nationally Vulnerable Western North Island brown kiwi (<i>Apteryx mantelli</i>), New Zealand falcon (<i>Falco novaeseelandiae</i>) native bats, fish and reptiles.
Representativeness	Low	Contains areas of indigenous vegetation classified as an 'Acutely Threatened' LENZ (F5.2a) and 'At Risk' (F7.2a) LENZ environments. The remaining area is classified as 'Less reduced, better protected' LENZ environments.
Ecological context	High	Provides additional habitat and greater connectivity with two KNE Conservation Areas and other habitats in this area.
Sustainability	Positive	Key ecological processes still influence the site and with appropriate management, it can remain resilient to existing or potential threats.

Threats to ecological values	Potential threat	Comment
Pest animals	High	Possums, cats, mustelids, hedgehogs, rodents and goats.
Weeds	Medium	Occasional African clubmoss and burdock.
Habitat modification	Medium	Stock currently have access although will be excluded once protected.

Site protection measures addressing potential and actual threats are as follows:

Site protection	Yes/No	Description
A Public ownership or formal agreement	Yes	Landowners are working with the QEII Trust towards a covenant.
B Regulatory protection by local government	Yes	General regional or district rules might apply.
C Active protection	Yes	The landowner occasionally undertakes pest animal control at varying levels as resources allow.



Tongaporutu/Hutiwai Upper Estuaries

At a glance (last updated: January 2016)	
TRC reference: BD/9547	Ecological district: North Taranaki
Other reference:	LENZ environment: F1.1b = 1.1ha C1.2a = 16.5 ha Open water = 11.1 ha
Land tenure: NPDC	Protection status: A, B, C
GPS: E 1739062 N 5701841	Area: 28.7ha

Location

The Tongaporutu/Hutiwai Upper Estuaries Key Native Ecosystem is located on district council land just upstream from Tongaporutu in the North Taranaki Ecological District.

General description

The Tongaporutu/Hutiwai Upper Estuaries Key Native Ecosystem area consists of the upper Tongaporutu riverine estuary and margins and the Hutiwai estuary and margins. These combined areas contain a variety of rare habitat types, which in turn support a variety of rare native flora and fauna with high biodiversity values.

Ecological features

Flora

Small tidal bays and the river margin within the estuaries provide a rare habitat type for a variety of specialised native flora. Notable 'Regionally Distinctive' species include natural populations of saltmarsh ribbonwood (*Plagianthus divaricatus*) and mangero (*Litsea calicaris*). Buffer margins around the estuaries are present and contain a well established variety of mainly native plants. Coastal rushlands are present and well established on the estuary margins especially in the lower Hutiwai stream area.

Fauna

The Tongaporutu/Hutiwai estuaries area provides very important habitat for a diverse range of coastal fauna. The area is also an important inanga (*Galaxias maculatus*) spawning area for north Taranaki. Notable species recorded to date include the 'At Risk' variable oystercatcher (*Haematopus unicolor*) and royal spoonbill (*Platalea regia*).



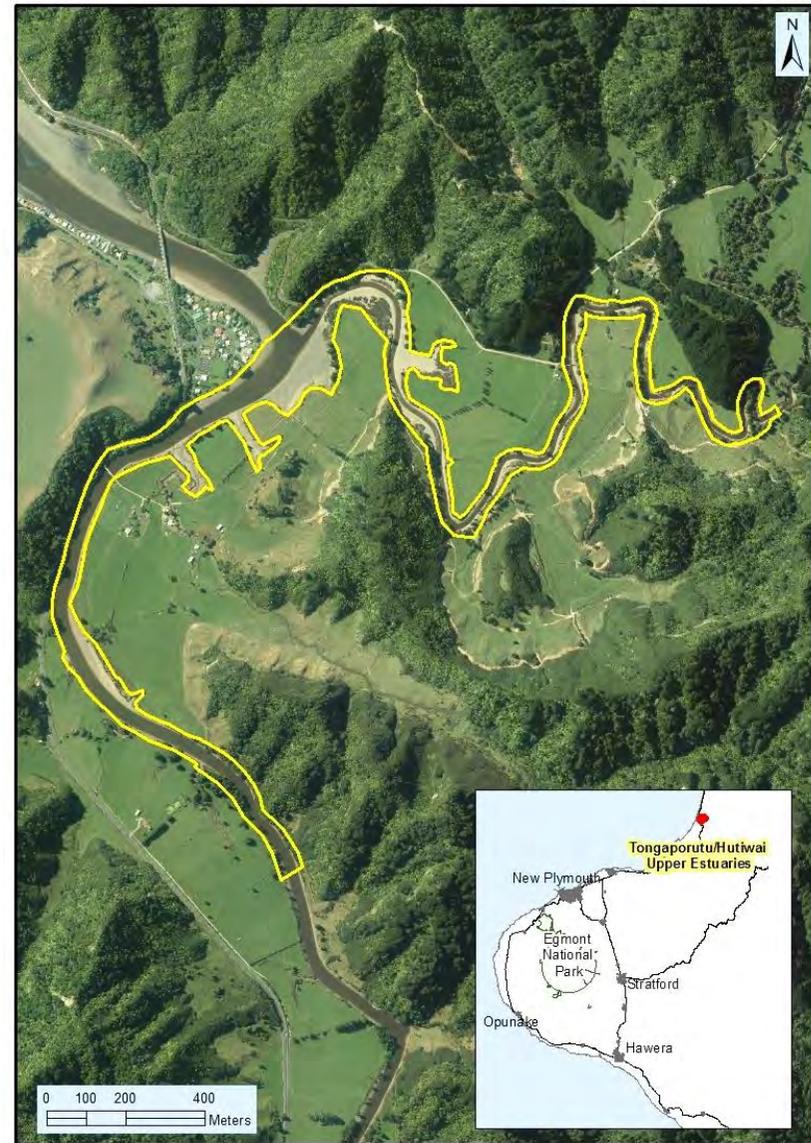
Ecological values

Ecological values	Rank	Comment
Rarity and distinctiveness	High	Contains 'Regionally Distinctive' flora species including saltmarsh ribbonwood and mangero (<i>Litsea calicaris</i>). Also contains 'At Risk' variable oystercatcher (<i>Haematopus unicolor</i>) and royal spoonbill (<i>Platalea regia</i>).
Representativeness	High	Contains vegetation associated with (C1.2a) 'Acutely Threatened' LENZ environment.
Ecological context	High	Provides seasonal and core habitat for specific indigenous species. Provides additional habitat and greater connectivity with other Key Native Ecosystems in this area such as the Tongaporutu Conservation Area, Hutiwai Conservation Area, Tongaporutu QEII Covenants and Lower Tongaporutu Estuary.
Sustainability	Positive	Key ecological processes still influence the site and with appropriate management, it can remain resilient to existing or potential threats.

Threats to ecological values	Potential threat	Comment
Pest animals	Medium	Possums, cats, mustelids, hedgehogs and rodents.
Weeds	High	Areas of barberry, blackberry, cherry, cotoneaster, ginger, gorse, inkweed, ivy and pampas.
Habitat modification	Medium to Low	Currently mainly fenced and stock excluded. Vulnerable changing estuarine ecosystem, especially due to exposure to severe weather, erosion from flooding and sea events.

Site protection measures addressing potential and actual threats are as follows:

Site protection	Yes/No	Description
A Public ownership or formal agreement	Yes	New Plymouth District Council.
B Regulatory protection by local government	Yes	General regional or district rules might apply.
C Active protection	Yes	Extensive fencing and planting of buffer margins.



Tongaporutu Lower Estuary

At a glance (last updated: January 2016)	
TRC reference: BD/9548	Ecological district: North Taranaki
Other reference:	LENZ environment: F1.1b = 0.3 ha C1.2a = 8.1 ha F7.2a = 4.3 ha F5.2a = 0.4 ha Open water = 59.3 ha
Land tenure: NPDC	Protection status: A, B, C
GPS: E 1737960 N 5702587	Area: 72.4ha

Location

The Tongaporutu Lower Estuary Key Native Ecosystem is located on district council land at Tongaporutu in the North Taranaki Ecological District.

General description

The Tongaporutu Lower Estuary Key Native Ecosystem area consists of the lower Tongaporutu riverine estuary, estuary margins and foreshore area at the mouth of the Tongaporutu River. These combined areas contain a variety of rare habitat types, which in turn support a variety of rare native flora and fauna with high biodiversity values.

Ecological features

Flora

The Tongaporutu Lower Estuary KNE area contains a variety of rare habitat types for a diverse range of specialised and rare native flora. Notable 'Regionally Distinctive' coastal species are present in the estuary and buffer margins including ngaio (*Myoporum laetum*), wharangi (*Melicope ternata*), whau (*Entelea arborescens*), akeake (*Dodonaea viscosa*) and coastal koromiko (*Hebe stricta* var. *macroura*) and other notable species may be present. The northern margin of the recommended area contains semi coastal forest with a canopy of rewarewa (*Knightia excelsa*), puriri (*Vitex lucens*), kohekohe (*Dysoxylum spectabile*) and mahoe (*Melicytus ramiflorus* subsp. *ramiflorus*). Good areas of native vegetation are also present between the main road and the estuary which contain nikau (*Rhopalostylis sapida*), wharangi, whau, mahoe, karo (*Pittosporum crassifolium*), karamu

(*Coprosma robusta*) etc. The cliff vegetation on the south side of the recommended area also offers a varied habitat for coastal cliff species which include akeake.

Fauna

The Tongaporutu Lower Estuary area provides very important habitat for a diverse range of coastal fauna. Notable 'Threatened' species recorded to date include the banded dotterel (*Charadrius bicinctus bicinctus*), Caspian tern (*Hydroprogne caspia*), pied shag (*Phalacrocorax varius varius*), red billed gull (*Larus novaehollandiae scopulinus*) and reef heron (*Egretta sacra sacra*). Notable 'At Risk' species include the black shag (*Phalacrocorax carbo novaehollandiae*), eastern bar-tailed godwit (*Limosa lapponica baueri*), little black shag (*Phalacrocorax sulcirostris*), northern blue penguin (*Eudyptula minor iredalei*), pied stilt (*Himantopus himantopus leucocephalus*), royal spoonbill (*Platalea regia*), South Island pied oystercatcher (*Haematopus finschi*), variable oystercatcher (*Haematopus unicolor*) and white-fronted tern (*Sterna striata striata*).

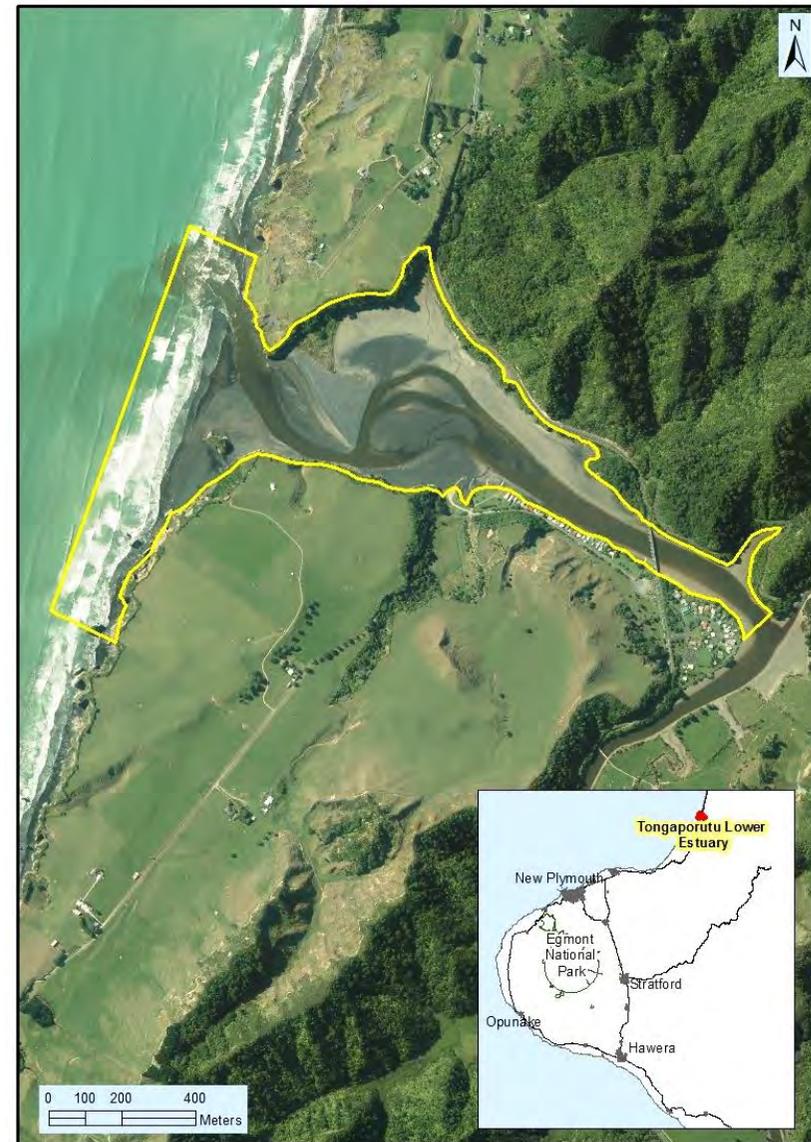
Ecological values

Ecological values	Rank	Comment
Rarity and distinctiveness	High	Contains considerable notable 'Threatened' and 'At Risk' species.
Representativeness	High	Contains vegetation associated with 'Acutely Threatened' and "At Risk" LENZ environments.
Ecological context	High	Provides seasonal and core habitat for specific indigenous species. Provides additional habitat and greater connectivity with other Key Native Ecosystems in this area such as the Tongaporutu Conservation Area, Hutiwai Conservation Area, Tongaporutu QEII Covenants and the Tongaporutu/Hutiwai Upper Estuaries.
Sustainability	Positive	Key ecological processes still influence the site and with appropriate management, it can remain resilient to existing or potential threats.

Threats to ecological values	Potential threat	Comment
Pest animals	Medium	Goats, possums, cats, mustelids, hedgehogs and rodents.
Weeds	High	Areas of blackberry, gorse, inkweed, Japanese honeysuckle, montbretia, onion weed, pampas, pine, wandering jew.
Habitat modification	Medium to Low	Vulnerable changing estuarine ecosystem, especially due to exposure to severe weather, erosion from flooding and sea events.

Site protection measures addressing potential and actual threats are as follows:

Site protection	Yes/No	Description
A Public ownership or formal agreement	Yes	New Plymouth District Council.
B Regulatory protection by local government	Yes	General regional or district rules might apply.
C Active protection	No	Naturally protected by road and cliff margins.



Tongaporutu QEII Covenants

At a glance (last updated: September 2015)			
TRC reference:	BD/9549	Ecological district:	North Taranaki
Other reference:		LENZ environment:	F1.1b (94.7 ha) C1.2a (3.4 ha)
Land tenure:	Private	Protection status:	A, B, C
GPS:	E 1739928 N 5701167	Area:	98.1 ha

Location

The Tongaporutu QEII covenants are located on private land less than 1km south east of Tongaporutu in North Taranaki within the North Taranaki Ecological District.

General description

The covenanted areas consist of typical North Taranaki dissected hill country with steep ridges and spurs and exposed sandstone bluff faces in some areas. The majority of the covenanted area is regenerating native scrub and young emerging forest although areas of original semi coastal forest are still present in places. The Hutiwai Conservation Area borders the covenant to the south east and the Tongaporutu Conservation Area and Whitecliffs Conservation Area are both less than 1km to the north and south west of the covenant providing good connectivity to these habitats.

Ecological features

Flora

The covenanted area consists primarily of manuka (*Leptospermum scoparium*) with a mix of other species including tree ferns and nikau (*Rhopalostylis sapida*). Scattered patches of other forest species occur in sheltered areas or on river flats including kahikatea (*Dacrycarpus dacrydioides*), pukatea (*Laurelia novae-zelandiae*), rewarewa (*Knightia excelsa*), puriri (*Vitex lucens*) and hard beech (*Fescospora truncata*).

Fauna

Notable fauna within the covenant is likely to include the 'Nationally Vulnerable' Western North Island brown kiwi (*Apteryx mantelli*) and New Zealand falcon (*Falco novaeseelandiae*). A number of other threatened or at risk fauna species are also likely to be present including native bats and reptiles.

The covenanted area also contains populations of other forest birds including the New Zealand pigeon (*Hemiphaga novaeseelandiae*), grey warbler (*Gerygone igata*), fantail (*Rhipidura fuliginosa*) and tui (*Prosthemadera novaeseelandiae*).

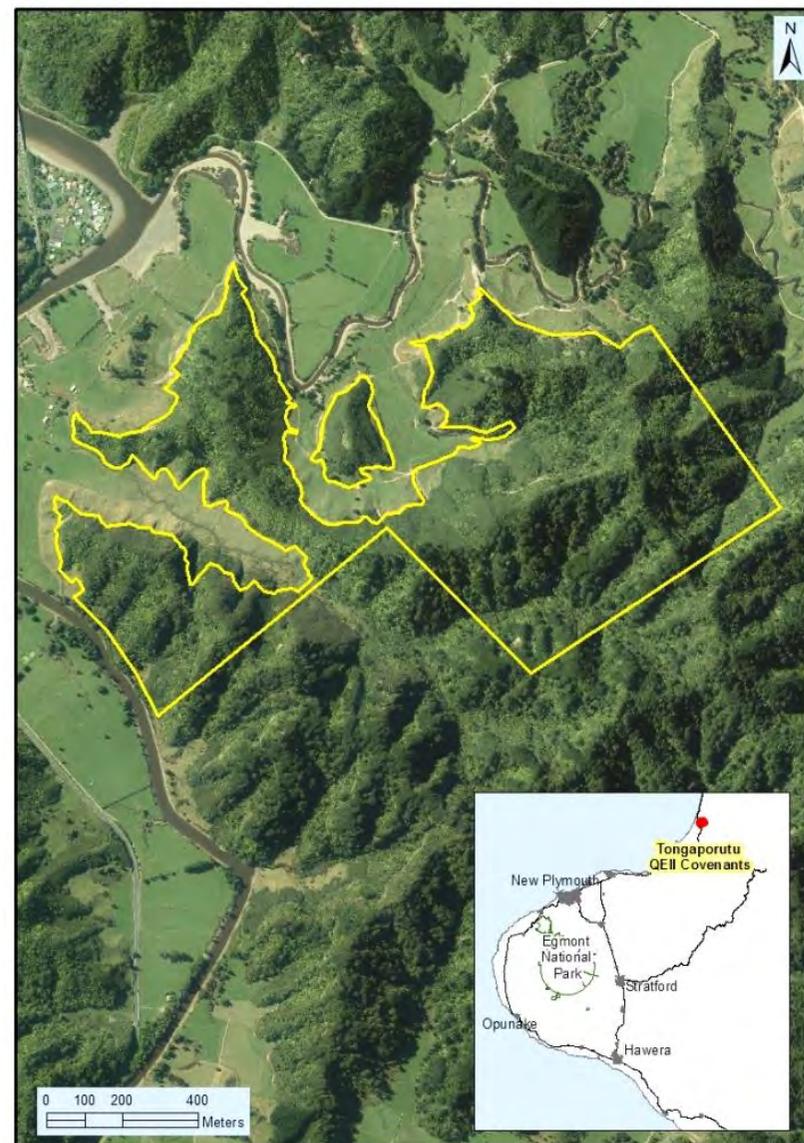
Ecological values

Ecological values	Rank	Comment
Rarity and distinctiveness	High	Contains threatened and at risk species such as the Nationally Vulnerable Western North Island brown kiwi (<i>Apteryx mantelli</i>) and New Zealand falcon (<i>Falco novaeseelandiae</i>).
Representativeness	Low	Contains a small area of indigenous vegetation classified as an 'Acutely Threatened' LENZ environment (C1.2a). The remaining greater areas are classified as 'Less reduced, better protected' LENZ environments.
Ecological context	High	Provides additional habitat and greater connectivity with three KNE Conservation Areas and other habitats in this area.
Sustainability	Positive	Key ecological processes still influence the site and with appropriate management, it can remain resilient to existing or potential threats. The site has the additional benefit of being formally protected.

Threats to ecological values	Potential threat	Comment
Pest animals	High	Possums, cats, mustelids, hedgehogs, rodents, goats and pigs.
Weeds	Medium	Occasional pampas, gorse, heath, wandering jew etc.
Habitat modification	Medium	Currently fenced and stock are excluded from the area. QEII covenant conditions apply.

Site protection measures addressing potential and actual threats are as follows:

Site protection		Yes/No	Description
A	Public ownership or formal agreement	Yes	Covered by a QEII covenant.
B	Regulatory protection by local government	Yes	General regional or district rules might apply.
C	Active protection	Yes	The landowner occasionally undertakes pest animal control at varying levels as resources allow.



Totara Mahanga

At a glance (last updated: November 2015)			
TRC reference:	BD/9552	Ecological district:	North Taranaki
Other reference:		LENZ environment:	F5.2a (2.64ha)
			F7.2a (0.27ha)
			C1.1a (1.60ha)
Land tenure:	Private	Protection status:	A, B, C
GPS:	E 1714986 , N 5663795	Area:	4.5 ha

Location

Totara Mahanga is located on privately owned land on Tarata Road approximately 11 km East of Inglewood between Kaimata and Tarata. The site is located in the North Taranaki ecological district.

General description

Totara Mahanga is made up of two separate bush remnants of lowland tawa forest in the Waitara catchment. The two areas are in the process of being covenanted and are in close proximity to other Key Native Ecosystems in the area, including the Tarata Conservation Area.

Ecological features

Flora

A large portion of the site is located on a land environment classified as 'Acutely Threatened' (less than 10% of this type of indigenous vegetation left remaining in Taranaki). The main canopy is a mix of Totara (*Podocarpus totara*), Tawa (*Beilschmiedia tawa*), Kamahi (*Weinmannia racemosa*), Rimu (*Dacrydium cupressinum*), Rewarewa (*Knightia excelsa*), Miro (*Prumnopitys ferruginea*) and Matai (*Prumnopitys taxifolia*) and is generally in good condition. The understorey and ground cover is in good condition and is made up of a wide number of shrub species Kawakawa (*Macropiper excelsum*), Kanono (*Coprosma grandifolia*), Small leaved milk tree (*Streblus heterophyllus*), and NZ gloxinia (*Rhabdothamnus solandri*) along with a wide range of ferns. Of note is the presence of the regionally distinctive Tawhirikaro (*Pittosporum cornifolium*).

Fauna

Native birdlife recorded in and around the site includes the New Zealand pigeon (*Hemiphaga novaeseelandiae*), grey warbler (*Gerygone igata*), fantail (*Rhipidura fuliginosa*), tui (*Prosthemadera novaeseelandiae*), Bellbird (*Anthornis melanura*), kingfisher (*Halcyon sancta vagans*), North Island Robin (*Petroica longipes*), and New Zealand Falcon (*Falco novaeseelandiae*).

Ecological values

Ecological values	Rank	Comment
Rarity and distinctiveness	Medium	Contains the 'Regionally Distinctive' Tawhirikaro (<i>Pittosporum cornifolium</i>). And provides habitat for the 'Regionally Distinctive' New Zealand Falcon (<i>Falco novaeseelandiae</i>). North Island robin (<i>Petroica longipes</i>) would be close to their western extent in Taranaki here.
Representativeness	High	Contains vegetation associated with 'Acutely Threatened' (F5.2a), 'Chronically Threatened' (C1.1a) and 'At Risk' (F7.2a) LENZ environments.
Ecological context	Medium	Provides additional habitat and greater connectivity with other Key Native Ecosystems in this area such as the Tarata Conservation Area.
Sustainability	Positive	Key ecological processes still influence the site and with appropriate management, it can remain resilient to existing or potential threats. The site has the additional benefit of most likely being formally protected in the near future.

Threats to ecological values	Potential threat	Comment
Pest animals	High	Possums, cats, mustelids, hedgehogs and rodents.
Weeds	High	Scattered areas of blackberry, barberry, tradescantia, and Japanese honeysuckle.
Habitat modification	Medium	Some areas of the eastern remnant are not fenced but these are proposed to be fenced in conjunction with the covenanting process.

Site protection measures addressing potential and actual threats are as follows:

Site protection		Yes/No	Description
A	Public ownership or formal agreement	Pending	Site is in the process of being protected by a QEII covenant.
B	Regulatory protection by local government	Yes	General regional or district rules might apply.
C	Active protection	Yes	Property lies just outside the Self Help possum control boundary, but owners do some possum control. Most of the area has been fenced off and retired by the owners for many years.

