'Habitat' 240 Jones Road Liffey TAS 7301

9th December 2021

Planning Authority Northern Midlands Council PO Box 156 LONGFORD TAS 7301

Via email: lps@nmc.tas.gov.au

Representation about the Northern Midlands Draft LPS – request to rezone our two titles at 240 Jones Road, Liffey, from Agriculture to Landscape Conservation

Summary

We request that our property at 240 Jones Road, Liffey (PID 2137449, CT 23577/1 and CT 209745/1) is rezoned from Agriculture to Landscape Conservation. The application of the Agriculture Zone to all the private land along the Great Western Tiers escarpment from our property to Liffey Falls is contrary to Guidelines AZ7 and 3.5, and therefore needs to be revisited. The case for rezoning our property, as well as adjoining properties through to Liffey Falls, to Landscape Conservation Zone under Guideline LCZ1 or LCZ2 is strong given that they adjoin the Tasmanian Wilderness World Heritage Area, their connectivity, their demonstrated natural values and that they are all overlain by the NOR-C8.1.5 Great Western Tiers Scenic Protection Area.

Titles proposed for rezoning

We are the owners of 240 Jones Road, Liffey (PID 2137449, CT 23577/1 and CT 209745/1). In the currently exhibited Draft Zone Maps these two titles are zoned as Agriculture (see Map 1) and below we present the case for rezoning our property as Landscape Conservation.

Planning Authority's rationale for rezoning our property to Agriculture.

The Planning Authority's rationale for zoning our property as Agriculture is essentially because it is currently zoned Rural Resource under NMIPS 2013. On p 88 of the Supporting Report it states:

Based on the comparison of provisions between existing zones and SPP zones as documented in Appendix 1, Council reached the decision that the Agriculture zone most closely aligned with the current provisions of the Rural Resource Zone in the NMIPS 2013. Hence, this is the fundamental transition applied to all land currently zoned Rural Resource, including the Rural Resource zoned land excluded from the PPU project analysis.

Map 2 (Mapping Layer 2) and Map 3 (Mapping Layer 1) show that our property and all the properties along the Great Western Tiers escarpment outside of public reserves were included in the State-wide Agricultural Land Mapping Project study area and this is confirmed in the Agricultural Land Mapping Project – Background Report – May 2017 on Page 7 under '2.2.1 Step 1 – Definition of study area'.

The Background Report adds on the bottom of p 11

The mapping produced through Steps 1 to 4 created the Potential Agricultural Land Initial Analysis mapping layer (Mapping Layer 1) ...

which means that our property was analysed during Steps 1 to 4 of the methodology.

What the Planning Authority appears to have misunderstood in the Mapping Project methodology is that the land within the Study Area but not classified during Step 6 analysis as:

- Unconstrained agricultural land
- Potentially Constrained agricultural land (Criteria 2A)
- Potentially Constrained agricultural land (Criteria 2B)
- Potentially Constrained (Criteria 3)

was also analysed at Step 5.

'Titles with areas less than 50% mapped in Mapping Layer 1 were further analysed by Senior Agricultural Consultants for potential inclusion, taking into consideration the areas of mapped ES Clusters.' (top of p 15 in Background Report)

It was during Step 5 that our property and the other uncoloured titles in Mapping Layer 2 (Map 2) were excluded as candidates for the constraints analysis at Step 6. Under Guideline AZ7 the Commission describes such land as

Land not identified in the 'Land Potentially Suitable for Agriculture Zone' layer.

The reasons why these titles were excluded from Step 6 are self evident.

The land is simply not suitable for any form of agriculture as demonstrated by the 'Land Capability' Layer (see Map 4). Nearly all the land is Class 6 which according to the Land Capability Handbook 2nd Edition (Grose, 1999) is:

Land marginally suitable for grazing because of severe limitations. This land has low productivity, high risk of erosion, low natural fertility or other limitations that severely restrict agricultural use. This land should be retained under its natural vegetation cover.

The same unsuitability for agriculture is demonstrated by the 20 publicly available Enterprise Suitability Maps and would undoubtedly accord with the full Enterprise Suitability dataset (not publicly available) analysed by the Mapping Project at Step 2.

Inconsistency of Northern Midlands zoning with adjacent Meander Valley zoning

Guideline 3.5 in the Commission's Guideline No 1 states:

The spatial application of zones and codes should as far as practicable be consistent with and coordinated with the LPS that applies to an adjacent municipal area as required by section 34(2)(g) of the Act.

The application of the Rural and Agriculture Zones across the Northern Midlands municipality is neither consistent nor coordinated with the Meander Valley LPS, or the Draft Southern Midlands LPS to its south, or the Draft Glamorgan Spring Bay LPS and Draft Break O'Day LPS to its east.

This is illustrated in Map 5 which shows the extensive use of the Rural Zone along the Great Western Tiers escarpment in the Meander Valley Zone Map and no use of the Rural Zone along the Great Western Tiers escarpment in the Northern Midlands Draft Zone Map, apart from four Sustainable Timber Tasmania PTPZ titles on public land.

The blanket application of the Agriculture Zone across nearly all titles zoned Rural Resource in NMIPS 2013 is in stark contrast to the approach taken in other municipalities. The *Decision Tree and Guidelines for Mapping the Agriculture and Rural Zones - 20 April 2018* prepared by AK Consultants for the Southern Councils and used by those and many other Councils has resulted in a relatively consistent use of these two zones in those municipalities. The same consultants were engaged by Meander Valley to inform the use of Rural and Agriculture Zones in their Draft Zone Map.

It is therefore not surprising that the Northern Midlands Draft Zone Map is neither consistent nor coordinated with surrounding municipalities as required under section 34(2)(g) of the *Land Use Planning and Approvals Act 1993*, let alone the rest of the state.

If Northern Midlands Planning Authority had used the AK Consultants Decision Tree it would not have applied Agriculture Zone to Land Capability Class 6 land and would have applied the Landscape Conservation Zone to all the titles containing Private Reserves (see pages 13-14 of the Decision Tree document). It would also have considered Landscape Conservation Zone as more appropriate than the Rural Zone for our property for the reasons given below.

Case for rezoning our property to Landscape Conservation

Our conservation property covers two titles, the mostly forested 27 ha CT 23577/1 which includes clearings for our residential dwelling and native plant nursery, and the 40 ha CT 209745/1 entirely covered by mature forest (see satellite image in Map 6). It is located on the lower slopes of the Great Western Tiers between Drys Bluff and The Chump.

It is part of an extensive area of vegetation along the escarpment containing areas of threatened vegetation communities listed in Schedule 3A of the *Nature Conservation Act 2002* as well as numerous threatened flora and fauna listed in Schedules 3-5 of the *Threatened Species Protection Act 1995*.

Guideline LCZ2 states:

The Landscape Conservation Zone may be applied to:

- (a) large areas of bushland or large areas of native vegetation which are not otherwise reserved, but contains threatened native vegetation communities, threatened species or other areas of locally or regionally important native vegetation;
- (b) land that has significant constraints on development through the application of the Natural Assets Code or Scenic Protection Code; ...

Our property complies with both clause (a), which will be discussed below, and clause (b) because it is subject to the NOR-C8.1.5 Great Western Tiers Scenic Protection Area (see Map 7).

Furthermore, because our property adjoins the Tasmanian Wilderness World Heritage Area the Australian Government *Environment Protection and Biodiversity Conservation*Act 1999 (EPBC Act) regulates actions occurring on our property that are likely to have a significant impact on the World Heritage values of the Tasmanian Wilderness. This restriction on use and development on our property serves to strengthen the case for applying the Landscape Conservation Zone.

It is clear that the Zone Purpose that is the best fit for our property, given its unsuitability for agriculture and its demonstrated high natural values, is that for Landscape Conservation Zone:

- 22.1.1 To provide for the protection, conservation and management of landscape values.
- 22.1.2 To provide for compatible use or development that does not adversely impact on the protection, conservation and management of the landscape values.

Consistency of zoning across the landscape

As mentioned above, our property is part of a 6 km long band of vegetation along the Great Western Tiers escarpment adjoining and including parts of the Tasmanian Wilderness World Heritage Area with recognized high natural values and includes the 85 ha Liffey Falls State Reserve and 691 ha Drys Bluff Conservation Area, all zoned Environmental Management, and eight Private Reserves protected by conservation covenant, all part of the Tasmanian Reserve Estate and Australia's National Reserve System (see World Heritage Area and Tasmanian Reserve Estate Layers in Map 8). The State Government is committed to reserving the Future Potential Production Forest within this part of the World Heritage Area as Conservation Area under the *Nature Conservation Act* 2002 (see Attachment 3).

CT 209745/1 adjoins the Tasmanian Wilderness World Heritage Area and is also linked to the 131 ha Drys Bluff Reserve owned by Bush Heritage Australia through our neighbours' forested property at 202 Jones Road (CT 250902/1). We understand that the owners of both of these properties will also be requesting the rezoning of their properties to Landscape Conservation Zone.

In view of the connectivity of all of these private properties and public reserves, all clearly unsuitable for and not used for agriculture, and that good strategic planning will apply similar zones

across titles with similar values, the case for rezoning our property to Landscape Conservation is further strengthened.

The demonstrated natural values on our and surrounding properties

The natural values on our property have been investigated and recorded by qualified ecologists in the following two reports:

- 1. Land for Wildlife Natural Values Report, 20 April 2005, by Leigh Walters for DPIPWE; and
- 2. Natural Values Report for Staubmann/Stannus Properties, Liffey, August 2006, by Graham Green for the Midlands Biodiversity Hotspot Project; and
- 3. Land for Wildlife report on Flora and Fauna at 'Habitat', Liffey, May 2006, by Sarah Lloyd. The first two reports also apply to neighbours' property at 202 Jones Road.

These reports, included as Attachments 1, 2 and 4 respectively, provide independent expert evidence that our property and our neighbours' property complies with Guideline LCZ2 (a) and therefore no further analysis of the natural values is required.

These reports provide details of the threatened vegetation communities, flora, fauna and habitat on these two properties including

- 17.5 ha of threatened vegetation community No 32 Notelaea Pomaderris Beyeria forest
- 9.5 ha of threatened vegetation community No 25 Eucalyptus viminalis wet forest
- Endangered Tasmanian wedge-tailed eagle (Aquila audax fleayi) EPBC listed
- Endangered Grey goshawk (Accipiter novaehollandiae)
- Endangered Tasmanian devil (Sarcophilus harrisii) EPBC listed
- Vulnerable Eastern barred bandicoot (Perameles qunnii qunnii) EPBC listed
- Vulnerable Spotted-tail quoll (Dasyurus maculatus maculatus) EPBC listed

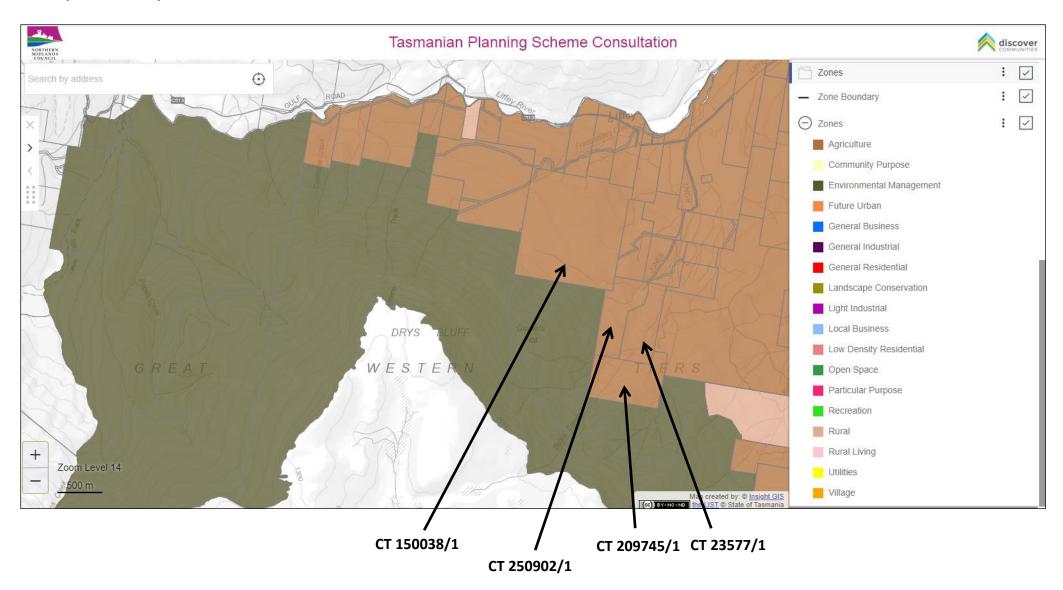
Yours sincerely

Herbert and Sally Staubmann

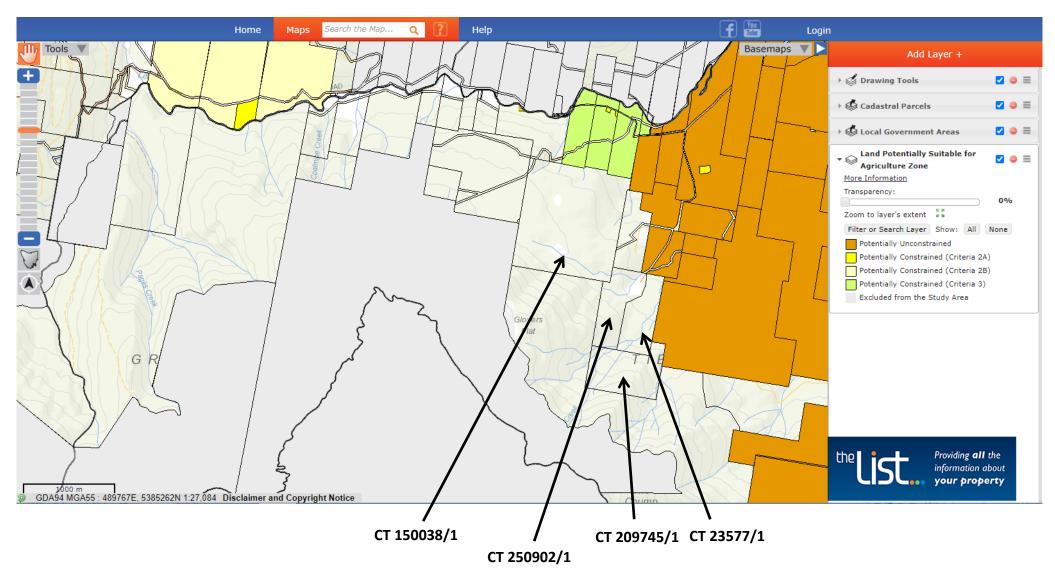
Email: info@habitatplants.com.au

Phone: 03 6397 3400

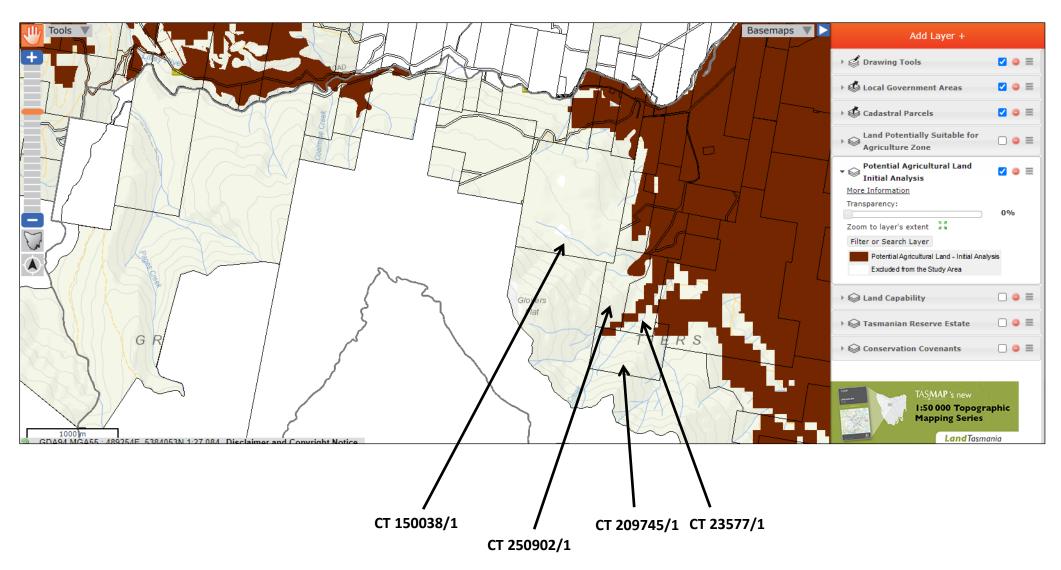
Map 1 - Zone Map from Northern Midlands Draft LPS



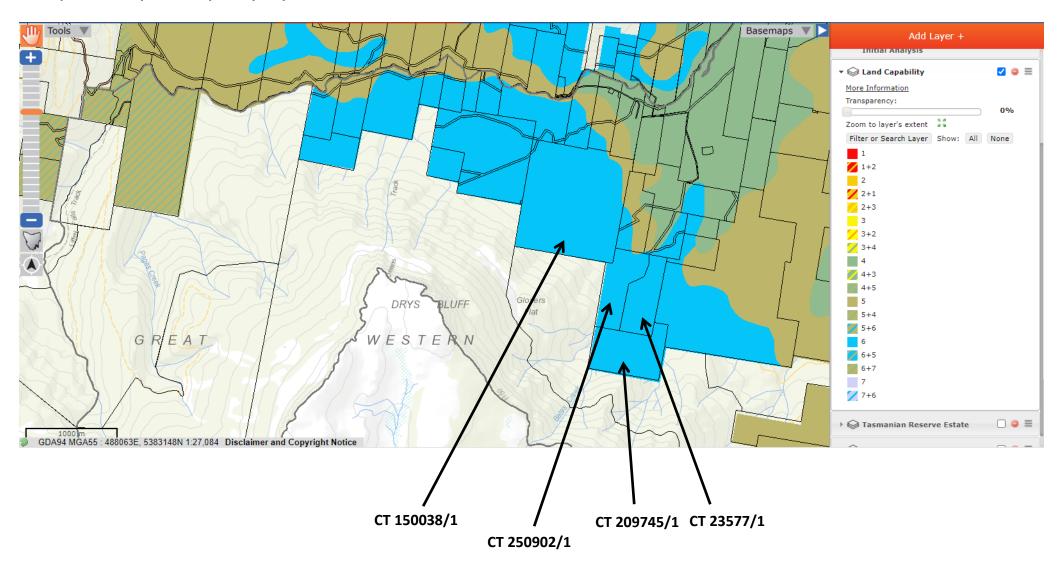
Map 2 - ListMap 'Land Potentially Suitable for Agriculture' layer with titles identified



Map 3 – ListMap 'Potential Agricultural Land Initial Analysis' Layer with titles identified

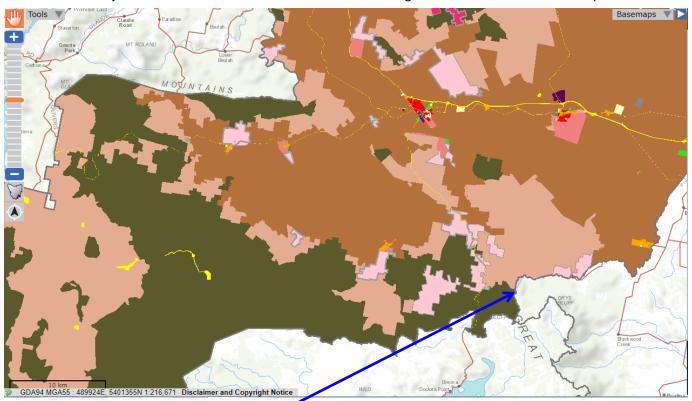


Map 4 – ListMap 'Land Capability' Layer with titles identified

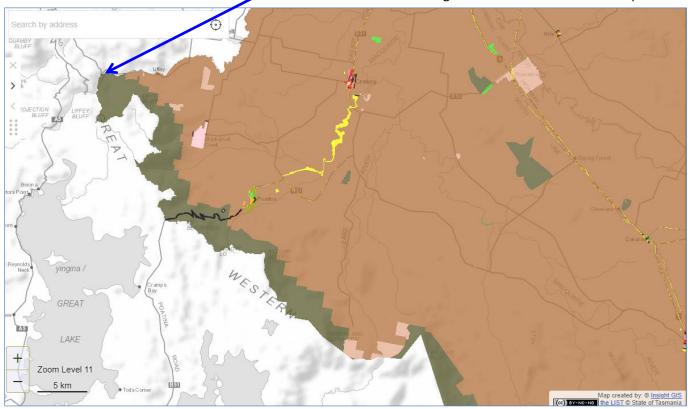


Map 5 – Comparison of zone application between Meander Valley LPS and Northern Midlands Draft LPS in adjoining areas at the same scale

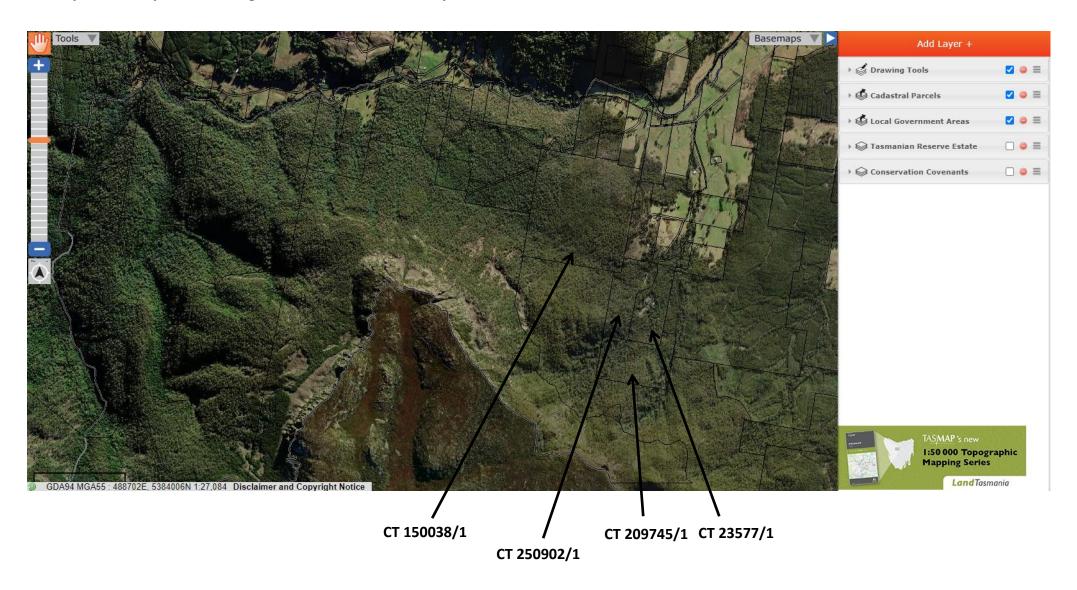
Meander Valley LPS – Note the extensive use of Rural Zone along the Great Western Tiers escarpment



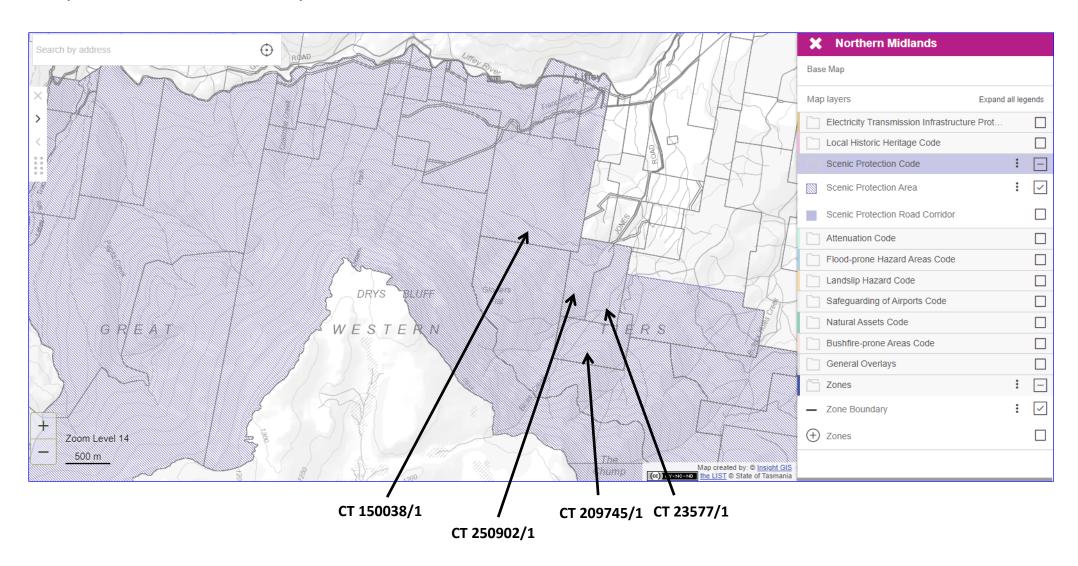
Northern Midlands Draft LPS - Note the minimal use Rural Zone along the Great Western Tiers escarpment



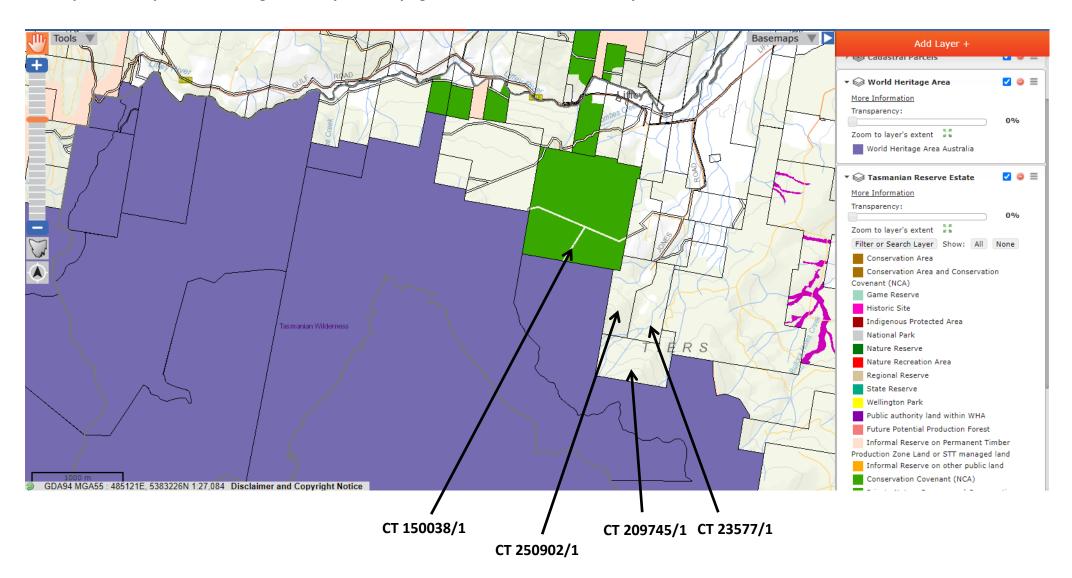
Map 6 – ListMap Satellite Image with 'Cadastral Parcels' Layer



Map 7 – Scenic Protection Area overlay from Northern Midlands Draft LPS



Map 8 – ListMap 'World Heritage Area' Layer overlaying 'Tasmanian Reserve Estate' Layer with titles identified



Natural Values Report

Staubman

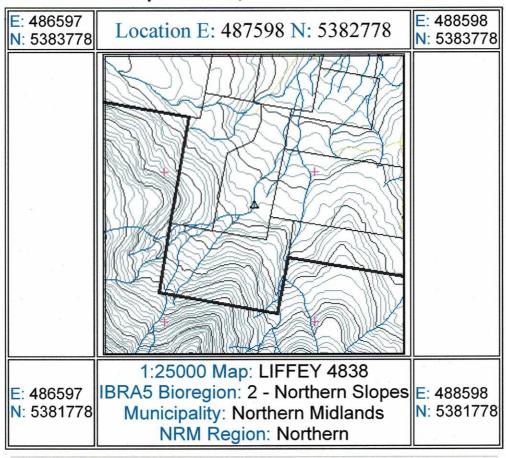


Phone

63316377 email leighwalters@bigpond.com

Date

Wed Apr 20 2005, 12:59:05

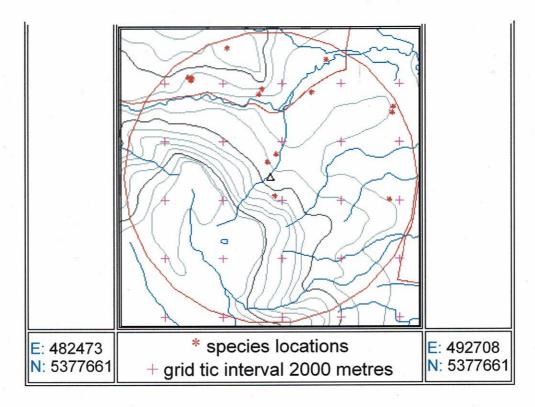


Rare or Threatened Fauna

None found within 500 m.

E: 482473 N: 5387894	Rare or Threatened Fauna within 5000 metres	E: 492708 N: 5387894
	2	
*		e e





18 sites found

NAME	NEW_	NAME	COMMON	SS	NS	EAST	NORTH	ACC	R
Accipiter novaehollandiae	Accipiter novaeho		grey goshawk	е		484900	5386100	1000	RE
Accipiter novaehollandiae	Accipiter novaeho		grey goshawk	е		484925	5386175	1000	CS
Accipiter novaehollandiae	Accipiter novaeho		grey goshawk	е		487800	5383575	1000	CS
Accipiter novaehollandiae	Accipiter novaeho		grey goshawk	е		487300	5385800	1000	RE
Accipiter novaehollandiae	Accipiter novaeho		grey goshawk	е		487300	5385800	100	RE
Accipiter novaehollandiae	Accipiter novaeho		grey goshawk	е		484900	5386100	100	RE
Accipiter novaehollandiae	Accipiter novaeho		grey goshawk	е		487300	5385800	100	RE
Accipiter novaehollandiae	Accipiter novaeho		grey goshawk	е		487200	5385613	1000	CS
Accipiter novaehollandiae	Accipiter novaeho		grey goshawk	е		48480Ö	5386200	1000	RE
Accipiter novaehollandiae	Accipite novaeho		grey goshawk	е		484800	5386200	100	RE
Aquila audax fleayi	Aquila a fleayi	udax	wedge-tailed eagle	е	EN	487750	5382150	20	BE
Aquila audax fleayi	Aquila a fleayi	udax	wedge-tailed eagle	е	EN	491650	5382029	1000	Gι as
Aquila audax	Aquila a	udax	wedge-tailed	е	EN	491793	5385201	200	NI

20/04/2005

fleayi	fleayi	eagle						L
11	Aquila audax fleayi	wedge-tailed eagle	е	EN	491750	5385000	500	NI
Dasyurus maculatus maculatus	Dasyurus maculatus maculatus	spotted-tailed quoll	r	VU	487500	5383300	200	M
Lathamus discolor	Lathamus discolor	swift parrot	е	EN	486125	5387202	18500	NE
Litoria raniformis	Litoria raniformis	green and golden frog	٧	VU	489500	5386800	1000	SF
Tyto novaehollandiae castanops	Tyto novaehollandiae castanops	masked owl (tasmanian)	е		489000	5385700	9000	MF

For more information:

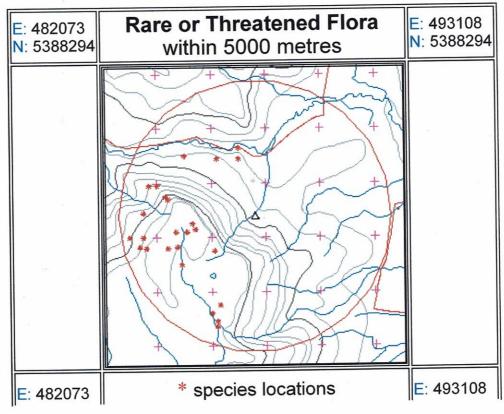
Contact: Threatened Species Unit - Enquiries

Threatened Species Unit Phone: 03 6233 3424

Email: Threatened.Species.Unit@dpiwe.tas.gov.au

Rare or Threatened Flora

None found within 500 m



N: 5377261

+ grid tic interval 2000 metres

N: 5377261

27 sites found

NAME	NEW_NAME	COMMON	SS	NS	EAST	NORTH	ACC	RI
Asperula subsimplex	Asperula subsimplex	water woodruff	r		484900	5381000	1000	JKi
Asperula subsimplex	Asperula subsimplex	water woodruff	r		486000	5379200	1000	JKi
Asplenium hookerianum	Asplenium hookerianum	hooker's spleenwort	V	VU	485000	5385000	100	M.
Brunonia australis	Brunonia australis	blue pincushion	٧	4	487000	5385300	2000	L. I
Carex gaudichaudiana	Carex gaudichaudiana		pl		486200	5378900	1000	JKi
Carex gaudichaudiana	Carex gaudichaudiana		pl		486000	5379200	1000	JKi
Carex gaudichaudiana	Carex gaudichaudiana		pl		484900	5381000	1000	JKi
Danthonia procera	Austrodanthonia procera	tall wallaby- grass	r		486200	5384900	100	РВ
Deyeuxia brachyathera	Deyeuxia brachyathera	short bent grass	r		486200	5378700	1000	JKi
Epilobium willisii	Epilobium willisii	carpet willowherb	r		486200	5378900	1000	JKi
Epilobium willisii	Epilobium willisii	carpet willowherb	r		486000	5379200	1000	JKi
Epilobium willisii	Epilobium willisii	carpet willowherb	r		485400	5382300	1000	JKi
Epilobium willisii	Epilobium willisii	carpet willowherb	r		484900	5381000	1000	JKi
Epilobium willisii	Epilobium willisii	carpet willowherb	r		485300	5382500	1000	JKi
Epilobium willisii	Epilobium willisii	carpet willowherb	r		486100	5381500	1000	JKi
Epilobium willisii	Epilobium willisii	carpet willowherb	r		486300	5379500	1000	JKi
Epilobium willisii	Epilobium willisii	carpet willowherb	r		483600	5381600	1000	JKi
Persoonia muelleri angustifolia	Persoonia muelleri angustifolia	mueller's geebung	р		484300	5383500	100	JKi
Persoonia muelleri angustifolia	Persoonia muelleri angustifolia	mueller's geebung	р		484400	5383400	100	JKi
Rytidosperma	Austrodanthonia	tall wallaby	r		487000	5384900	100	F. I

procerum	procera	grass						
Stellaria multiflora	Stellaria multiflora	rayless starwort	r	- Comment	484000	5383900	1000	JKi
Stellaria multiflora	Stellaria multiflora	rayless starwort	r		483700	5383900	1000	JKi
Stellaria multiflora	Stellaria multiflora	rayless starwort	r		483500	5382900	1000	JKi
Stellaria multiflora	Stellaria multiflora	rayless starwort	r		484000	5383900	100	JKi
Stellaria multiflora	Stellaria multiflora	rayless starwort	r		483000	5382000	1000	A.N
Stellaria multiflora	Stellaria multiflora	rayless starwort	r		483500	5382000	100	A.
Viola cunninghamii	Viola cunninghamii	cunningham's violet	r		485400	5382300	1000	JKi
Viola cunninghamii	Viola cunninghamii	cunningham's violet	r		485300	5382500	1000	JKi
Viola cunninghamii	Viola cunninghamii	cunningham's violet	r		484900	5381000	1000	JKi
Viola cunninghamii	Viola cunninghamii	cunningham's violet	r		486000	5379200	1000	JKi
Viola cunninghamii	Viola cunninghamii	cunningham's violet	r		485100	5382200	1000	JKi
Viola cunninghamii	Viola cunninghamii	cunningham's violet	r		484700	5382200	1000	JKi
Viola cunninghamii	Viola cunninghamii	cunningham's violet	r		484400	5381600	1000	JKi
Viola cunninghamii	Viola cunninghamii	cunningham's violet	r		483600	5381600	1000	JKi

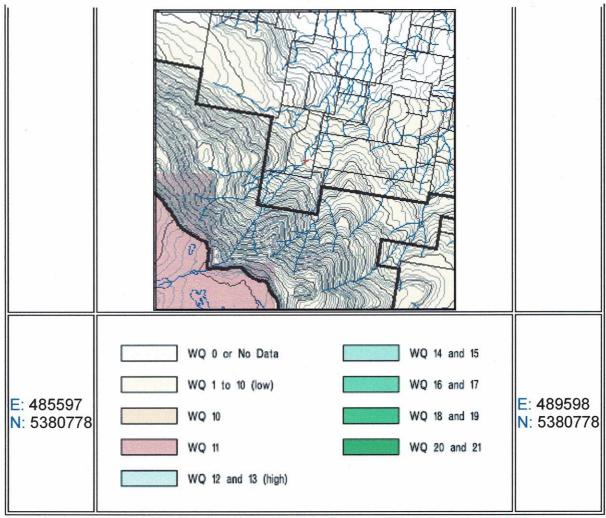
For more information:

Contact: Threatened Species Unit - Enquiries

Threatened Species Unit Phone: 03 6233 3424

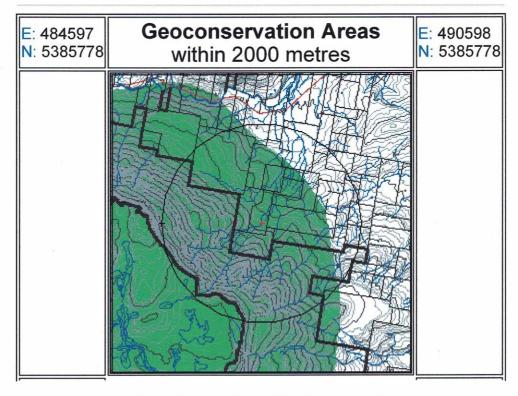
Email: Threatened.Species.Unit@dpiwe.tas.gov.au

E: 485597 N: 5384778	Wilderness Values	E: 489598 N: 5384778
= <u>y</u>		



Source: Australian Land Disturbance Database (1995)

Value at location is 6 - Low Quality



E: 484597 N: 5379777

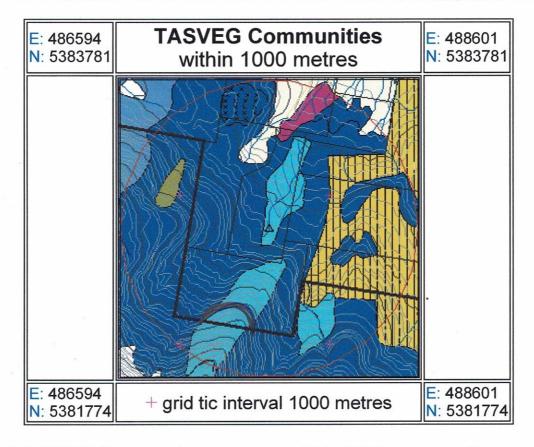
E: 490598 N: 5379777

3 areas found.

GIS_CODE	NAME
MEA10	Great Western Tiers Escarpment
MEA14	Liffey - Poatina Glacial Areas
MER42	Central Plateau Terrane
SOP19	Central Highlands Cainozoic Glacial Area

For more information please contact: Mike Pemberton, Senior Earth Scientist Mike.Pemberton@dpiwe.tas.gov.au Phone (03) 6233 6405.

Please note that due to platform incompatability the TASVEG version used on this server is now out of date. The latest version will be available on the new server which is now under development. In the meantime, the latest version of TASVEG can be accessed via The LIST website or a CD can be ordered from tasveg@dpiwe.tas.gov.au



TASVEG Communities present within 1000 metres of point:

* * * * * * * * * * * * * * * * * * *	crDT	recently cleared tall E. delegatensis forest	Bushcare Management Information	6 ha
		medium height E. delegatensis forest	Bushcare Management Information	57 ha
	DT	tall E. delegatensis forest	Bushcare Management Information	340 ha
	Fi	improved pasture and cropland		6659 ha
	0	E. obliqua dry forest	Bushcare Management Information	257 ha
	11 1 1 1	shrubby E. ovata/ E. viminalis forest	Bushcare Management Information	5 ha
	PL	plantation		327 ha
	Sr	rainforest scrub	Bushcare Management Information	3 ha

Create Legend Image

Private Forest Reserves Program Candidate Areas

None found within 1000 m.

Natural Values Report 'Staubman/Stannus Properties' Liffey





Graham Green August 2006

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1.0 Introduction

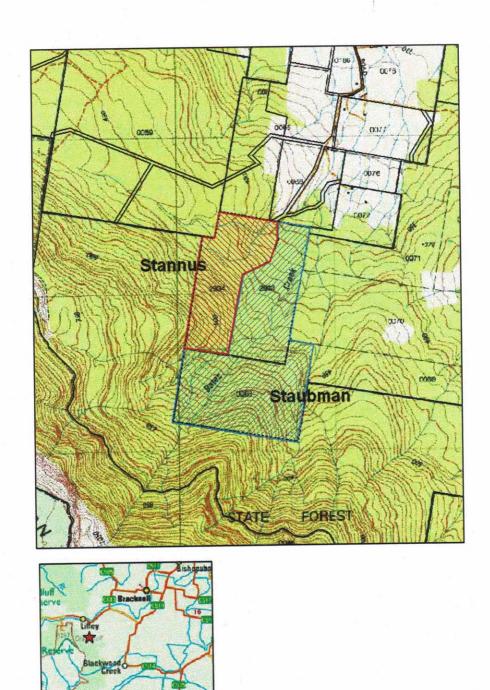
The aim of this natural values report is to describe the native vegetation communities and threatened species identified on the Staubman and Stannus Properties as part of consideration for funding under the Midlands Biodiversity Hotspot Project.

The Properties are located at Jones Road Liffey (Fig. 1). The Stannus Property is a bush block of some 29 hectares comprised largely of *Eucalyptus obliqua* (Stringybark) forest and *E. viminalis* (white gum) forest. The Staubman Property is largely a bush block of some 67 hectares which comprises a native plant nursery. The Property covers an altitudinal range of 350 – 650 m with the predominant forest communities being *E. obliqua* (stringybark) forest, *Pomaderris apetala* (dogwood) broadleaf shrubbery, and *E. viminalis* (white gum) forest. Both Properties have small areas of *Nothofagus cunninghamii* (myrtle beech) rainforest and *E. ovata* (black gum) forest.

The Properties are considered important native bush remnants adjacent to the lowlands of the northern midlands plain which have undergone significant modification for commercial cropping and grazing. In the immediate vicinity of the Properties significant areas of native bushland have been converted to plantation and there is ongoing pressure for logging. Hence the properties have become important refuges for a diversity of fauna including some threatened species.

The properties, if managed primarily for nature conservation will offer ongoing habitat security and will form an important buffer for land reserved to the west under a Bush Heritage Reserve, the World Heritage Area and a Forest Reserve.

Fig 1: Location map of the Properties



2.0 Natural Values

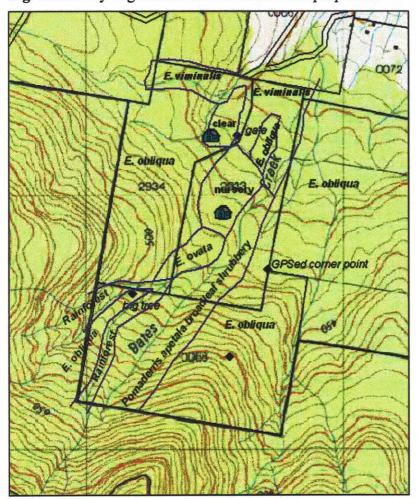
2.1 Vegetation communities

The primary vegetation communities on the Properties are listed in Table 1 and shown in Fig. 2.

Table 1: Forest communities on the Properties

Vegetation code	Description	Status	Staubman (ha)	Stannus (ha)
DOB	E. obliqua (stringybark) dry forest		17.0	12.2
WOB	E. obliqua (stringybark) wet forest		16.0	9.7
NNP -	Notelaea-Pomaderris-Beyeria broadleaf shrubbery	rare-endangered	17.5	
WVI -	E. viminalis (white gum) wet forest	endangered	6.0	3.5
RMT	Nothofagus cunninghamii rainforest		3.5	0.7
DOV -	E. ovata (black gum) forest		2.5	0.5
clear			5.0	2.6
Total			67.5	29.2

Fig. 2: Primary vegetation communities on the properties



On drier sites such as ridge lines and slopes with a northerly aspect *E. obliqua* (stringybark) is the dominant overstorey tree. The mid-storey is characterised by *Acacia verniciflua* (varnish wattle), *Bursaria spinosa* (prickly box), *Exocarpus cupressiformis* (native cherry), *Coprosma quadrifida* (native currant) and *Olearia lirata* (forest daisybush). The understorey is characterised by *Coprosma hirtella* (coffee berry), *Goodenia ovata* (hop native primrose), *Lomatia tinctoria* (guitarplant), *Leptecophylla juniperina* (mountain pinkberry), and *Pultenaea juniperina* (prickly beauty). Common plants at ground level include *Dianella tasmanica* (forest flaxlily), *Epacris impressa* (common heath), *Gonocarpus teucroides* (forest raspwort), and *Stylidium graminifolium* (trigger plant). A species list is given in Appendix 1.

At wetter sites, particularly creek lines at lower elevations, *E. viminalis* (white gum) and *E. ovata* (black gum) are the more common overstorey trees with a mid-storey commonly of *Acacia melanoxylon* (blackwood), *Pomaderris apetala* (dogwood), *Bedfordia salicina* (blanketleaf), *Melaleuca ericifolia* (coast paperbark), *Notelaea ligustrina* (native olive), *Olearia argophylla* (musk), and *Pittosporum bicolor* (cheesewood). The understorey is characterised by *Zieria arborescens* (stinkwood) and *Clematis aristata* (mountain clematis) with ferns such as *Polystichum proliferum* (mother shieldfern) and *Blechnum* species as groundcovers.

Along creek lines in deeper gullies upslope the vegetation is largely devoid of Eucalypts and is characterised in places by the broadleaf shrubbery listed above which becomes the canopy layer in the gullies. At some gully sites pure rainforest is present which is characterised by *Nothofagus cunninghamii* (myrtle beech), *Atherosperma moschatum* (sassafras) and an understorey of ferns, notably *Dicksonia antarctica* (soft treefern).

2.2 Vegetation context and condition

2.2.1 Vegetation condition

The Properties are well wooded with a diversity of aspects and vegetation communities. The vegetation of the Properties is largely in excellent condition and free from invasive weeds. Part of the Staubman Property was selectively logged in _____ prior to purchase by the Staubmans. The area is regenerating well (**Fig. 3**).

Fig 3: Regenerating forest on the Staubman property.



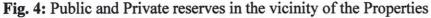
In places the vegetation on the Properties offers excellent habitat for a range of fauna, including undergrowth, tree hollows and coarse woody debris.

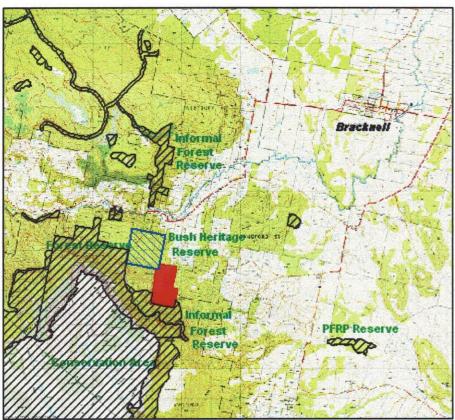
2.2.2 Regional context

The Properties are considered important native bush remnants adjacent to the lowlands of the northern midlands plain. On the midlands plain there is very little native fauna habitat remaining due to reduction and fragmentation for grazing and more recently intensified cropping using centre pivots. Remaining bush remnants on the plains are not necessarily large enough to support populations of native fauna and in many cases are significantly degraded by weed invasion, particularly gorse. There are few ideal locations remaining for Tasmania's endangered raptors as they require sheltered locations in bushland of greater than 10 hectares that are free from disturbance during their breeding season. Hence the bushland around the fringes of the midland plains has become an increasingly important refuge for Tasmania's native fauna because the tracts are larger and often contiguous with other reserved land such as the World Heritage Area - the boundary of which runs around the escarpment of the Great Western Tiers to the west of the Properties.

Bushland in the foothills of the tiers is however under ongoing threat from logging. In the immediate vicinity of the Properties significant areas of native bushland have already been converted to plantation and there is ongoing pressure for logging, particularly while excellent tax incentives for plantation establishment remain in place.

The properties, if managed primarily for nature conservation will ensure habitat security into the future and will provide connectivity of habitat to other reserved land in the area (Fig. 4).





2.3 Threatened species

Several animals of high conservation significance have a recorded and/or observed presence on the Properties (Table 2). This list was compiled from the Tasmanian Government's threatened species database (GTSpot) and from landholder sightings.

Table 2: Threatened species of the Properties

TSPA = Tasmanian Threatened Species Protection Act; EPBCA = Commonwealth Environment Protection and Biodiversity Conservation Act.

Conservation status TSPA / EPBCA	Midlands priority	Comments	
Endangered / -	priority 2	Recorded nesting in blackwoods along Bates Creek and its tributaries.	
Vulnerable / Vulnerable-	priority 2	Observed by the landholders, good habitat in places.	
- / Vulnerable	priority 1	Observed by the landholders, good habitat in places.	
Rare / Vulnerable	priority 2	GTSpot record on the Stannus property. Landholders have observed the quoll and there is ideal habitat in places.	
	TSPA / EPBCA Endangered / - Vulnerable / Vulnerable / Vulnerable	TSPA / EPBCA Endangered / - priority 2 Vulnerable / Vulnerable - / Vulnerable priority 1	

2.3.1 Grey goshawk

The Properties have key habitat for the grey goshawk (*Accipiter novaehollandiae*) – blackwood forest along the major creek-lines which is known to be used as nesting habitat. Maintenance of this habitat is very important for the goshawk which is listed as endangered under Tasmania's *Threatened Species Protection Act* (1995). It is listed due to low densities and limited breeding distribution. A high proportion of core habitat is in unprotected areas. There are believed to be less than 260 mature individuals left in the State¹.

Goshawk nests tend to be situated in the shady crown of the tree, but close to the bases of the limbs below the canopy. The nest structure is up to 50 cm wide and consists of sticks finer than a pencil, up to about 10mm in diameter. The breeding season is between September and February. Up to three eggs are laid, although usually only one chick is raised and is dependent on parental care for 9-10 weeks¹.

Potential nesting habitat occurs along watercourses in wet forest with old growth or regrowth older than 50 years, particularly where blackwood occurs. Blackwood is a preferred nest tree species followed by *Melaleuca*, myrtle, tea tree and eucalypt. Outside of blackwood swamp forests most nests are in riparian areas, but nests may occasionally be up to 100 m from a watercourse. Nests are always in forest (sometimes in patches less than 5 ha); isolated trees are not used for breeding¹.

The preferred wet forest habitat for this species has been extensively cleared in the past for agriculture, forestry and residential development. A high proportion of remaining core breeding and foraging habitat for this species is in unprotected areas and vulnerable to harvesting, clearing and disturbance.

2.3.2 Eastern barred bandicoot

The Properties are believed to provide reasonable habitat for the eastern barred bandicoot (*Perameles gunnii gunnii*) which is listed as vulnerable under the national *Environment Protection and Biodiversity Protection Act* 1999. There is only one known population of these bandicoots remaining on the mainland, however eastern barred bandicoots remain locally common in Tasmania largely due to isolation from introduced predators such as the fox.

Eastern barred bandicoots need native understorey plants to provide shelter, nest sites and food. They emerge at night to feed on the pasture pests such as cockchafer beetle grubs. Destruction of their natural habitat (grassy woodlands, native grasslands) and in particular, loss of ground cover required for refuge, is the greatest threat to bandicoots. It is important not to slash or burn areas where bandicoots occur.

2.3.3 Tasmanian Devil

The Tasmanian devil (Sarcophilus harrisii) was recently listed as a vulnerable species under the Commonwealth Environment Protection and Biodiversity Protection Act 1999 and is also listed as vulnerable under Tasmania's Threatened Species Protection Act 1995. The listings have arisen due to the devastating impact upon devil numbers due to the facial tumor disease.

The Tasmanian devil occurs throughout Tasmania but its preferred habitat is open forests and woodlands. Population densities are highest in dry and mixed sclerophyll forests and coastal heaths of the eastern half of Tasmania and north-west coast. The Properties are considered to be good

¹ Threatened Species Unit (2003). Draft Listing Statement for the Grey Goshawk -, Nature Conservation Branch, DPIW.)

habitat for the Tasmanian devil. Important habitat/shelter for devils is caves, thick scrub, old burrows and hollow logs.

2.3.4 Spotted-tailed quoll

The spotted-tailed quoll (*Dasyurus maculatus*) is the second largest of the world's surviving carnivorous marsupials. Spotted-tailed quolls vary from reddish brown to dark chocolate brown with white spots on the body and tail (unlike eastern quolls which do not have spots on the tail). The species is considerably larger than the eastern quoll, with males measuring up to 130 cm long and 4 kg in weight. Females are significantly smaller than males².

The spotted-tailed quoll is also found on the east coast of mainland Australia and is threatened throughout its mainland range. It is listed as a vulnerable species under the Commonwealth *Environment Protection and Biodiversity Protection Act* 1999 and is also listed as rare under the State *Threatened Species Protection Act* 1995.

Spotted-tailed quolls are most common in cool temperate rainforest, wet sclerophyll forest and coastal scrub along the north and west coasts of Tasmania. Spotted-tail quolls are largely solitary and nocturnal, although the species does sometimes forage and bask during daylight hours².

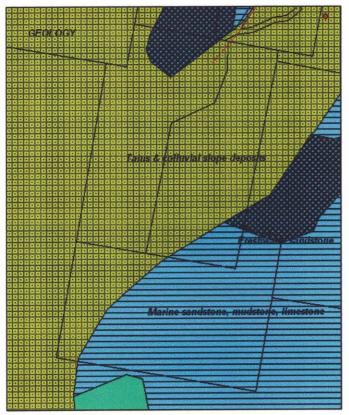
The spotted-tailed quoll is a capable hunter that, like the eastern quoll, kills its prey by biting on or behind the head. Prey taken by the spotted-tailed quoll includes: rats, gliding possums, small or injured wallabies, reptiles, insects, birds and eggs. Carrion is frequently eaten by spotted-tailed quolls. Large spotted-tailed quolls compete directly with Tasmanian devils for food².

2.4 Geology

The geology underlying the majority of the Staubman and Stannus Properties is described as 'talus & colluvial slope deposits' while the southern portion of the Staubman property is described as 'marine sandstone, mudstone, limestone' **Fig. 5**.

² http://www.parks.tas.gov.au/wildlife/mammals/stquoll.html

Fig. 5: Geology of the Staubman & Stannus properties



The Properties fall within two areas of geoconservation significance:

1. Great Western Tiers escarpment – listed

General - a major escarpment rimming the north and northeast sides of the Central Plateau.

Values-A major tertiary fault-line escarpment subsequently modified by glacial, periglacial, mass movement, fluvial and karst landform processes.

2. Central Plateau Terrane – listed

General – an area of more than 1000 km^2 bounded by the Mersey valley to the west and the Great Western Tiers to the north.

Values – Flat-lying Parmeener Supergroup with virtually continuous dolerite cover. Extensive Pleistocene ice cap glaciation effect.

Appendix 1: Native plant species list

Botanical survey at the Staubman/Stannus property Liffey

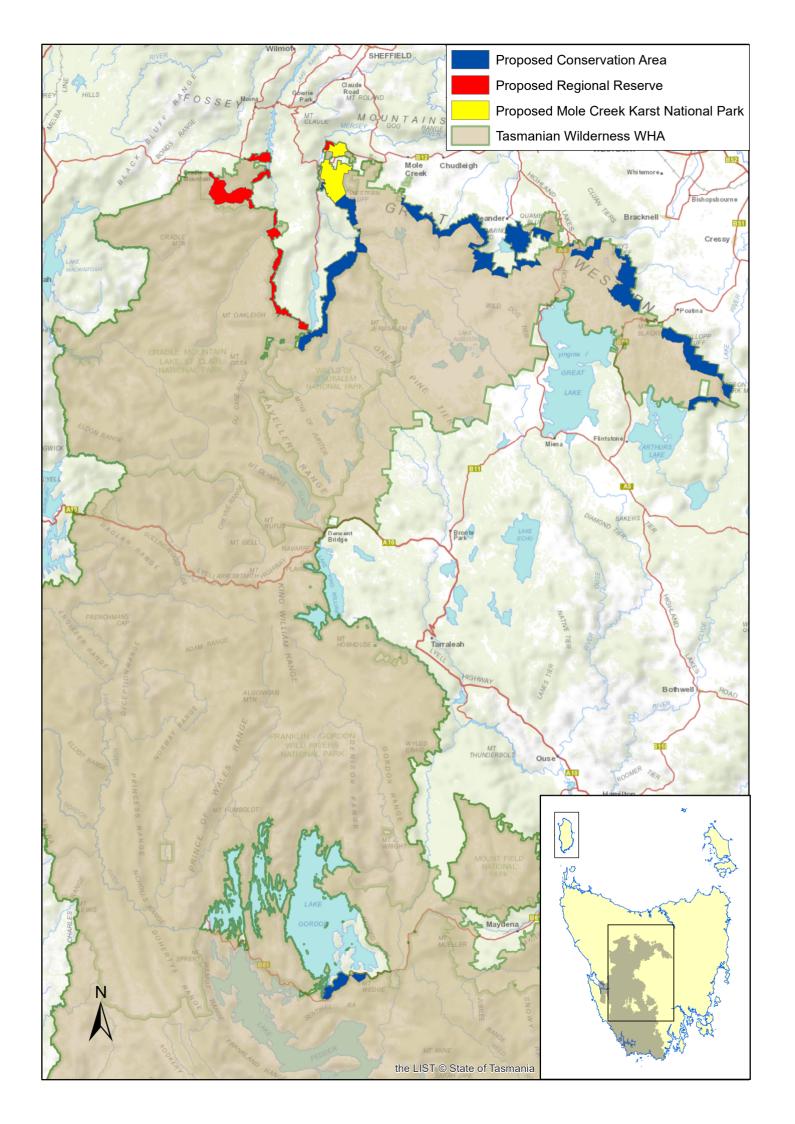
Date: 2006

Veg community: E. obliqua/E. viminalis wet forest & broadleaf shrubbery

Native species list

GENUS	SPECIES	FAMILY	Common name
Acacia	dealbata	Mimosaceae	silver wattle
Acacia	verniciflua	Mimosaceae	varnish wattle
Acacia	verticillata	Mimosaceae	prickly moses
Acacia	melanoxylon	Mimosaceae	blackwood
Acaena	novae-zelandiae	Rosaceae	common buzzy
Aristotelia	pedunculata	Elaeocarpaceae	heartberry
Asplenium	bulbiferum	Aspleniaceae	mother spleenwort
Asplenium	flabellifolium	Aspleniaceae	necklace fern
Atherosperma	moschatum	Monimiaceae	sassafras tasmanian
Bedfordia	salicina	Asteraceae	blanketleaf
Billardiera	longiflora	Pittosporaceae	purple appleberry
Blechnum	chambersii	Blechnaceae	lance waterfern
Blechnum	nudum	Blechnaceae	fishbone waterfern
Blechnum	wattsii	Blechnaceae	hard waterfern
Bursaria	spinosa	Pittosporaceae	prickly box
Carex	appressa	Cyperaceae	tall sedge
Cassinia	aculeata	Asteraceae	dollybush
Cassytha	melantha	Lauraceae	large dodderlaurel
Clematis	aristata	Ranunculaceae	mountain clematis
Comesperma	volubile	Polygalaceae	blue lovecreeper
Coprosma	hirtella	Rubiaceae	coffeeberry
Coprosma	quadrifida	Rubiaceae	native currant
Dianella	tasmanica	Liliaceae	forest flaxlily
Dichelachne	rara	Poaceae	common plumegrass
Dicksonia	antarctica	Dicksoniaceae	soft treefern
Drymophila	cyanocarpa	Liliaceae	turquoise berry
Epacris	impressa	Epacridaceae	common heath
Eriochilus	cucullatus	Orchidaceae	autumn orchid
Eucalyptus	obliqua	Myrtaceae	stringybark
Eucalyptus	ovata	Myrtaceae	black gum
Eucalyptus	viminalis	Myrtaceae	white gum common native-
Exocarpus	cupressiformis	Santalaceae	cherry .
Gastrodia	procera	Orchidaceae	tall potato-orchid
Geranium	potentilloides	Geraniaceae	mountain cranesbill
Gonocarpus	teucrioides	Halogoraceae	forest raspwort
Goodenia	ovata	Goodeniaceae	hop native-primrose
Goodia	lotifolia	Fabaceae	smooth goldentip
Grammitis	billardierei	Grammitidaceae	common fingerfern
Helichrysum	scorpioides	Asteraceae	curling everlasting
Histiopteris	incisa	Dennstaedtiaceae	batswing fern
Huperzia	varia	Lycopodiaceae	long clubmoss
Hymenophyllum	cuppressiforme	Hymenophyllaceae	common filmyfern
Hypolepis	rugosula	Dennstaedtiaceae	ruddy groundfern
Indigofera	australis	Fabaceae	native indigo

Isolepis	hookeriana	Cyperaceae	grassy clubsedge
Isolepis	inundata	Cyperaceae	swamp clubsedge
Isolepis	wakefieldiana	Cyperaceae	tufted clubsedge
Juncus	bufonius	Juncaceae	toad rush
Juncus	gregiflorus	Juncaceae	green rush
Juncus	pauciflorus	Juncaceae	looseflower rush
Lagenophora	stipitata	Asteraceae	blue bottledaisy
	juniperina subsp.		
Leptecophylla	parvifolia	Epacridaceae	mountain pinkberry
Lomandra	longifolia	Xanthorrhoeacea	sagg
Lomatia	tinctoria	Proteaceae	guitarplant
Mazus	pumilio	Scrophulariaceae	swamp mazus
Melaleuca	ericifolia	Myrtaceae	coast paperbark
Microsorum	pustulatum	Polypodiaceae	kangaroo fern
Muehlenbeckia	gunnii	Polygonaceae	forest lignum
Notelaea	ligustrina	Oleaceae	native olive
Nothofagus	cunninghamii	Fagaceae	myrtle beech
Olearia	argophylla	Asteraceae	musk
Olearia	lirata	Asteraceae	forest daisybush
		0	grassland
Oxalis	perennans	Oxalidaceae	woodsorrel
Ozothamnus	ferrugineus	Asteraceae	tree everlastingbush
Pimelea	drupacea	Thymelaeaceae	cherry riceflower
Pittosporum	bicolor	Pittosporaceae	cheesewood
Poa	sp	Poaceae	maathan ahialdfana
Polystichum	proliferum	Dryopteridaceae	mother shieldfern
Pomaderris	apetala	Rhamnaceae	common dogwood
Poranthera	microphylla	Euphorbiaceae	small poranthera
Pteridium	esculentum daphnoides var.	Dennstaedtiaceae	bracken
Pultenaea	obcordata	Fabaceae	heartleaf bushpea
Pultenaea	juniperina	Fabaceae	prickly beauty
Rumohra	adiantiformis	Dryopteridaceae	leathery shieldfern
Sambucus	gaudichaudiana	Caprifoliaceae	white elderberry
Scleranthus	biflorus	Caryophyllaceae	twinflower knawel
Senecio	linearifolius	Asteraceae	fireweed groundsel
Senecio	minimus	Asteraceae	shrubby fireweed
Solanum	laciniatum	Solanaceae	kangaroo apple
Stackhousia	monogyna	Stackhousiaceae	forest candles
Stellaria	pungens	Caryophyllaceae	prickly starwort
0.0	panigana.		narrowleaf
Stylidium	graminifolium	Stylidiaceae	triggerplant
Tmesipteris	obliqua	Psilotaceae	common forkfern
Urtica	incisa	Urticaceae	scrub nettle
Viola	hederacea	Violaceae	ivyleaf violet
Wahlenbergia	sp	Campanulaceae	
Zieria	arborescens	Rutaceae	stinkwood



Flora and Fauna at Habitat, Liffey

Pteridophyta

Aspleniaceae

Asplenium bulbiferum

Mimosaceae Asteraceae Bedfordia salicina Acacia dealhata Cassinia aculeata Acacia melanoxylon Acacia vernicislua Cirsium vulgare Acacia verticillata Gnabhalium spp. Helichrysum scorpoides Monimiaceae Atherosperma moschatum Lagenifera stipitata Myrtaceae Olearia argophylla Eucalyptus obliqua Olearia lirata Eucalyptus ovata Ozothamnus ferrugineus Eucalyptus viminalis Senecio bisserratus Senecio linearifolius Melaleuca ericifolia Oleaceae Campanulaceae Wahlenbergia sp Notolea ligustrina Oxalidaceae Caprifoliaceae Sambucus gaudichaudiana Oxalis berennans Caryophyllaceae Pittosporaceae Scleranthus biflorus Billardiera longifolia Stellaria pungens Billardiera scandens Elaeocarpaceae Bursaria spinosa Aristotelia pedundulata Pittosporum bicolour Polygalaceae Epacridaceae Comesperme volubile Epacris impressa Polygonaceae Leptecophylla juniperina Muehlenbeckia gunnii var. parvifolia Euphorbiaceae Proteaceae Poranthera microphylla Lomatia tinctoria Ranunculaceae Fabaceae Clematis aristata Goodia lotifolia Indigofera australis Rhamnaceae Pomaderis apetala Pultanaea daphnoides var obcordata Pultanaea juniperina Rosaceae Acaena novae-zelandiae Fagaceae Nothofagus cunninghamii Rubus parvifolius Rubiaceae Gentianaceae Coprosma hirtella I Centaurium erythracaea Coprosma quadrifida Geraniaceae Geranium potentilloides Rutaceae Zieria arborescens Goodeniaceae Goodenia ovata Santalaceae Exocarpos cupressiformis Haloragaceae

Scrophulariaceae

Mazus pumilio

Gonocarpus teucroides

Cassytha melantha

Lauraceae

Isolepis wackefieldiana Lepidosperma elatius **Tuncaceae** Juncus buffonius Juncus effusus Juncus gregiflorus Juncus pauciflorus Liliaceae Dianella tasmanica Drymophila cyanocarpa Orchidaceae Eriochilus cucullatus Gastrodia sp. Poaceae Dichelachne rara Xanthorrhoeaceae Lomandra longifolia Fungi Anthracophyllum archeri Fuligo septica Ganoderma australe Marasmius elegans Mycena interrupta Mycena vinacea Pluteus atromarginatus Stereum ostrea

Solanaceae

Stylidiaceae

Thymelaceae

Urtica incisa

Urticaceae

Violaceae

Cyperaceae

Pimelea drupacea

Viola hederaceae

Monocotyledonae

Carex appresa

Isolepis hookeriana

Isolepis inundata

Solanum laciniatum

Stackhousia monogyna

Stylidium graminifolium

Stackhousiaceae

Asplenium flabellifolium Blechnaceae Blechnum chambersii Blechnum nudum Blechnum wattsii Dennstaedtiaceae Histiopteris incisa Hypolepis rugosula Pteridium esculentum Dicksoniaceae Dicksonia antarctica Dryopteridaceae Polystichum proliferum Rumohra adiantiformis Grammitidaceae Grammitis billardierei Hy npohyllaceae Hymenophyllum cupressiforme Polyphlebium venosum Lycopodiaceae Huperzia varia Polypodiaceae Microsorum pustulatum Psilotaceae Tmesipteris obliqua Invertebrates Freshwater Crayfish Astacopsis franklinii MacLeays Swallowtail Australian Admiral Funnel web spider White-tail spider Scorpion leech Lichen

Coenogonium

Birds Australian Shelduck Pacific Black Duck Brown Goshawk Grev Goshawk Wedge-tailed Eagle Peregrine Falcon Tasmanian Native-hen Brush Bronzewing Yellow-tailed Black-Cockatoo Sulphur Crested Cockatoo Green Rosella (E) Pallid Cuckoo Fan-tailed Cuckoo Shining Bronze-Cuckoo Southern Boobook Tawny Frogmouth Laughing Kookaburra Superb Fairy-wren Spotted Pardalote Striated Pardalote Tasmanian Scrubwren (E) Tasmanian Thornbill (E) Yellow Wattlebird (E) Yellow-throated Honeyeater (E) Strong-billed Honeyeater (E) Black-headed Honeyeater (E) Crescent Honeyeater New Holland Honeyeater Eastern Spinebill Scarlet Robin Flame Robin Pink Robin Dusky Robin (E) Olive Whistler Golden Whistler Grey Shrike-thrush Satin Flycatcher Grey Fantail Black-faced Cuckoo-shrike Dusky Woodswallow Grey Butcherbird Black Currawong

Grey Currawong

Birds(cont.) Forest Raven Beautiful Firetail European Goldfinch (I) Welcome Swallow Silvereve Bassian Thrush Common Blackbird (I) Common Starling (I) Mammals Monotremes Echidna Platypus Marsupials Spotted-tailed Quoll Tasmanian Devil Eastern Barred Bandicoot Common Wombat Brushtail Possum Ringtail Possum Long-nosed Potoroo Tasmanian Pademelon Bennets Wallaby Placental Mammals Bat spp Black Rat Swamp Rat House Mouse (I) Frogs Crinia tasmaniensis Litoria ewingi Reptiles Niveoscincus mettalicus Niveoscincus pretiosus (E) Tiliqua nigrolutea Notechis ater E = endemic



