

# Land cover change in the Mackay Whitsundays region 2012–14

## Introduction

This fact sheet is 1 of 13 in a series detailing land cover change in Queensland's Natural Resource Management regions. These fact sheets are addenda to the report: Queensland Department of Science, Information Technology and Innovation. 2015. *Land cover change in Queensland 2012–13 and 2013–14: a Statewide Landcover and Trees Study (SLATS) report*. DSITI, Brisbane. Please refer to this report for further background, terminology, methods and explanatory notes.

Figure 1 and Table 1 provide an historical overview of the remnant and non-remnant woody vegetation clearing trends within the region. The spatial distribution of the 2012–13, 2013–14 and historical woody vegetation clearing is shown in Figure 2. An overview of woody vegetation clearing rates categorised by tenure is provided in Table 2 and Figure 3. Woody vegetation clearing rates and remaining woody vegetation in each catchment within the region are provided in Tables 3 and 4, respectively, while replacement land cover information is provided in Table 5 and Figure 4.

## Summary

In 2012–13, the woody vegetation clearing rate for the Mackay Whitsundays region was 1 038 hectares per year (ha/year), an increase of 8% from the 2011–12 woody vegetation clearing rate of 961 ha/year (Table 2 and Figure 1).

In 2013–14, the woody vegetation clearing rate was 776 ha/year, a decrease of 25% from the 2012–13 woody vegetation clearing rate (1 038 ha/year) (Table 2 and Figure 1). The Mackay Whitsundays region had the lowest woody vegetation clearing rates of the natural resource management regions for both periods, accounting for 0.4% and 0.3% of the state's total woody vegetation clearing in 2012–13 and 2013–14, respectively.

In 2012–13, the clearing rate of remnant woody vegetation in the region was 413 ha/year, an increase of 82% from the 227 ha/year reported in the 2011–12 period. In 2013–14, the remnant woody vegetation clearing rate was 365 ha/year, a decrease of 12% from the 2012–13 period (413 ha/year). The clearing of remnant woody vegetation accounted for 40% and 47% of the total woody vegetation clearing in the region for the 2012–13 and 2013–14 periods, respectively (Table 1 and Figure 1).

The replacement land cover class for pasture represented 94% and 79% of the region's woody vegetation clearing reported in the 2012–13 and 2013–14 periods, respectively (Table 5 and Figure 4).

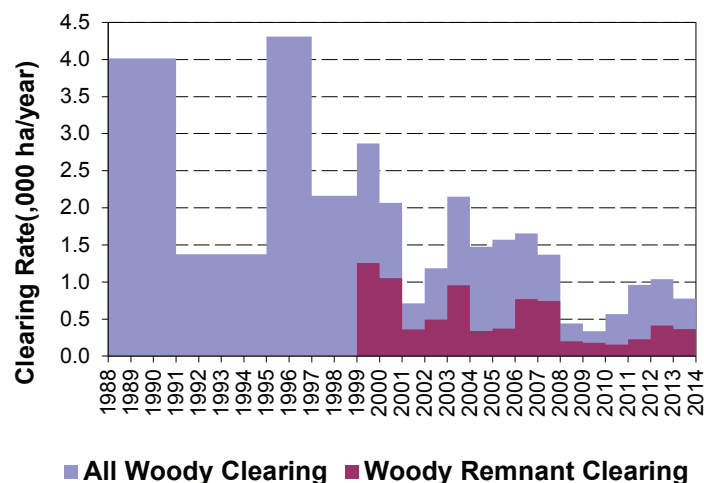


Figure 1. Woody vegetation clearing rates (,000 ha/year) in the Mackay Whitsundays region.

### Foliage Projective Cover (FPC) 2012 V2.3

- 0% FPC
- 1–40% FPC
- 41–70% FPC
- 71–100% FPC
- Water
- Roads

### Clearing

- 2013–14
- 2012–13
- 1988–12

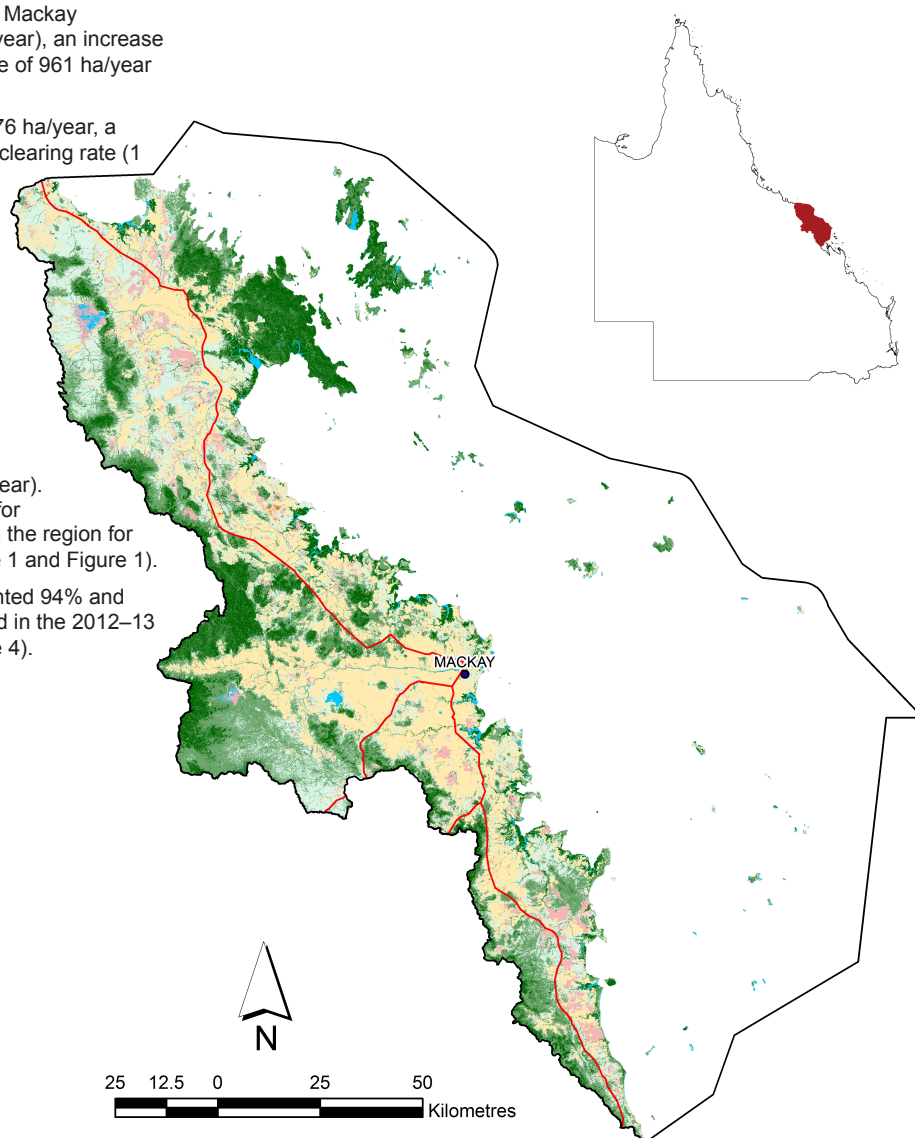


Figure 2. Spatial distribution of current (2012–13 and 2013–14) and historical (1988–12) woody vegetation clearing in the Mackay Whitsundays region.

## Woody vegetation clearing by remnant status

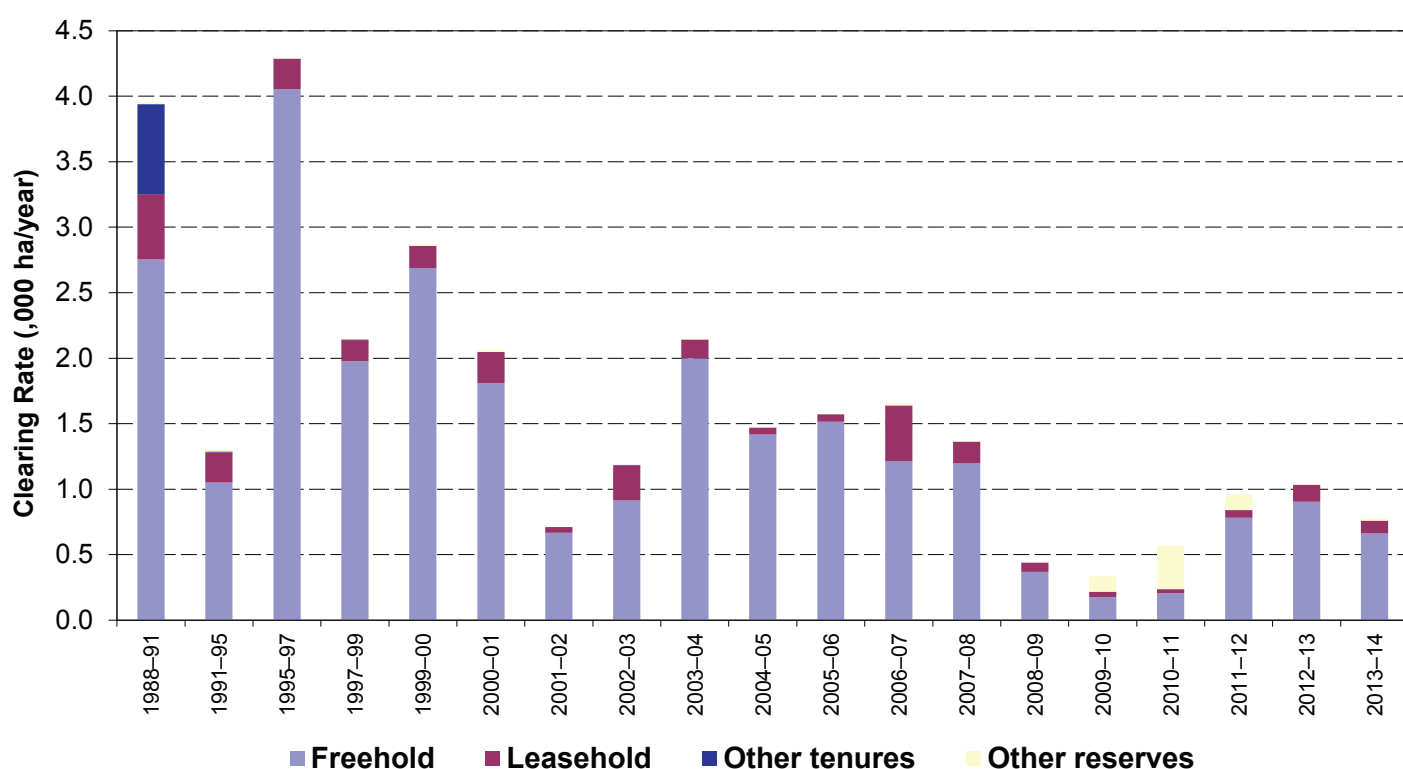
**Table 1. Remnant and non-remnant woody vegetation clearing rates (,000 ha/year) in the Mackay Whitsundays region.**

Period	Non-remnant woody	Remnant woody	Total woody clearing
1999–00	1.612	1.256	2.868
2000–01	1.015	1.052	2.067
2001–02	0.351	0.360	0.712
2002–03	0.692	0.493	1.185
2003–04	1.195	0.955	2.150
2004–05	1.136	0.339	1.475
2005–06	1.199	0.371	1.570
2006–07	0.886	0.769	1.654
2007–08	0.625	0.743	1.368
2008–09	0.241	0.200	0.441
2009–10	0.156	0.180	0.336
2010–11	0.411	0.156	0.567
2011–12	0.733	0.227	0.961
2012–13	0.625	0.413	1.038
2013–14	0.411	0.365	0.776

## Woody vegetation clearing by tenure

**Table 2. Woody vegetation clearing rates (,000 ha/year) in the Mackay Whitsundays region by tenure.**

Period	Freehold	Leasehold	Other tenures	Other reserves	Total
1988–91	2.755	0.497	0.689	0.013	3.954
1991–95	1.051	0.228	0.008	0.018	1.304
1995–97	4.054	0.233	0.001	0.007	4.294
1997–99	1.976	0.161	0.006	0.002	2.144
1999–00	2.688	0.169	0.000	0.011	2.868
2000–01	1.811	0.236	0.000	0.019	2.067
2001–02	0.667	0.044	0.000	0.000	0.712
2002–03	0.913	0.268	0.003	0.000	1.185
2003–04	2.000	0.142	0.000	0.007	2.150
2004–05	1.417	0.053	0.000	0.005	1.475
2005–06	1.515	0.055	0.000	0.000	1.570
2006–07	1.211	0.428	0.000	0.016	1.654
2007–08	1.196	0.167	0.000	0.006	1.368
2008–09	0.369	0.071	0.000	0.001	0.441
2009–10	0.176	0.040	0.000	0.120	0.336
2010–11	0.204	0.031	0.000	0.333	0.568
2011–12	0.781	0.058	0.000	0.122	0.961
2012–13	0.903	0.129	0.000	0.006	1.038
2013–14	0.661	0.099	0.000	0.016	0.776



**Figure 3. Woody vegetation clearing rates (,000 ha/year) in the Mackay Whitsundays region by tenure.**

## Woody vegetation clearing by catchment

**Table 3. Woody vegetation clearing rates (,000 ha/year) in the Mackay Whitsundays region by catchment.**

Catchments	2009–10	2010–11	2011–12	2012–13	2013–14
Misc other islands	0.000	0.000	0.000	0.001	0.000
O'Connell River	0.168	0.392	0.476	0.407	0.202
Pioneer River	0.030	0.038	0.034	0.064	0.041
Plane Creek	0.066	0.074	0.132	0.290	0.166
Proserpine River	0.071	0.063	0.318	0.275	0.367
Whitsunday Island	-	-	0.001	0.000	0.000
Total	0.336	0.567	0.961	1.038	0.776

(-) Catchments are not present in the specific period due to adjusted boundaries as a result of updated catchment datasets.

## Remaining woody vegetation

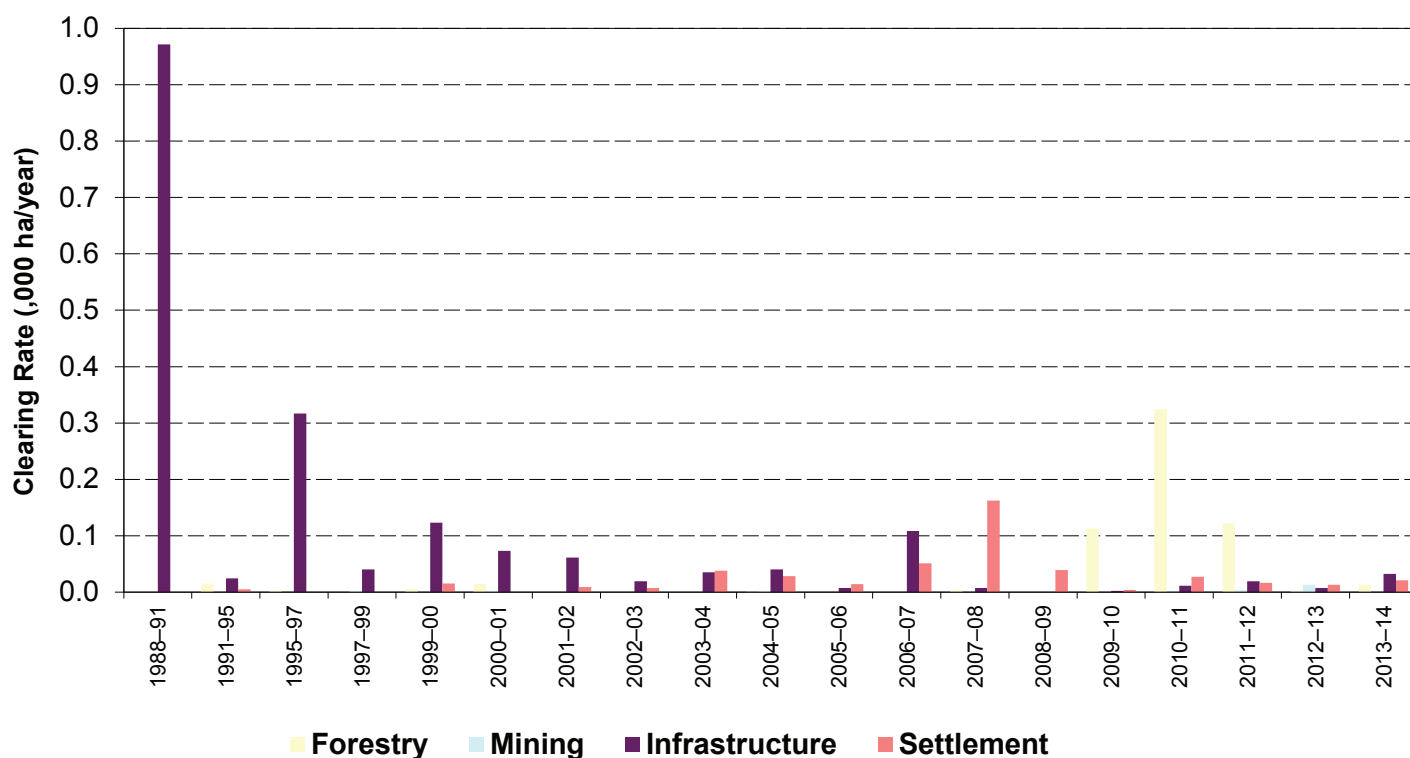
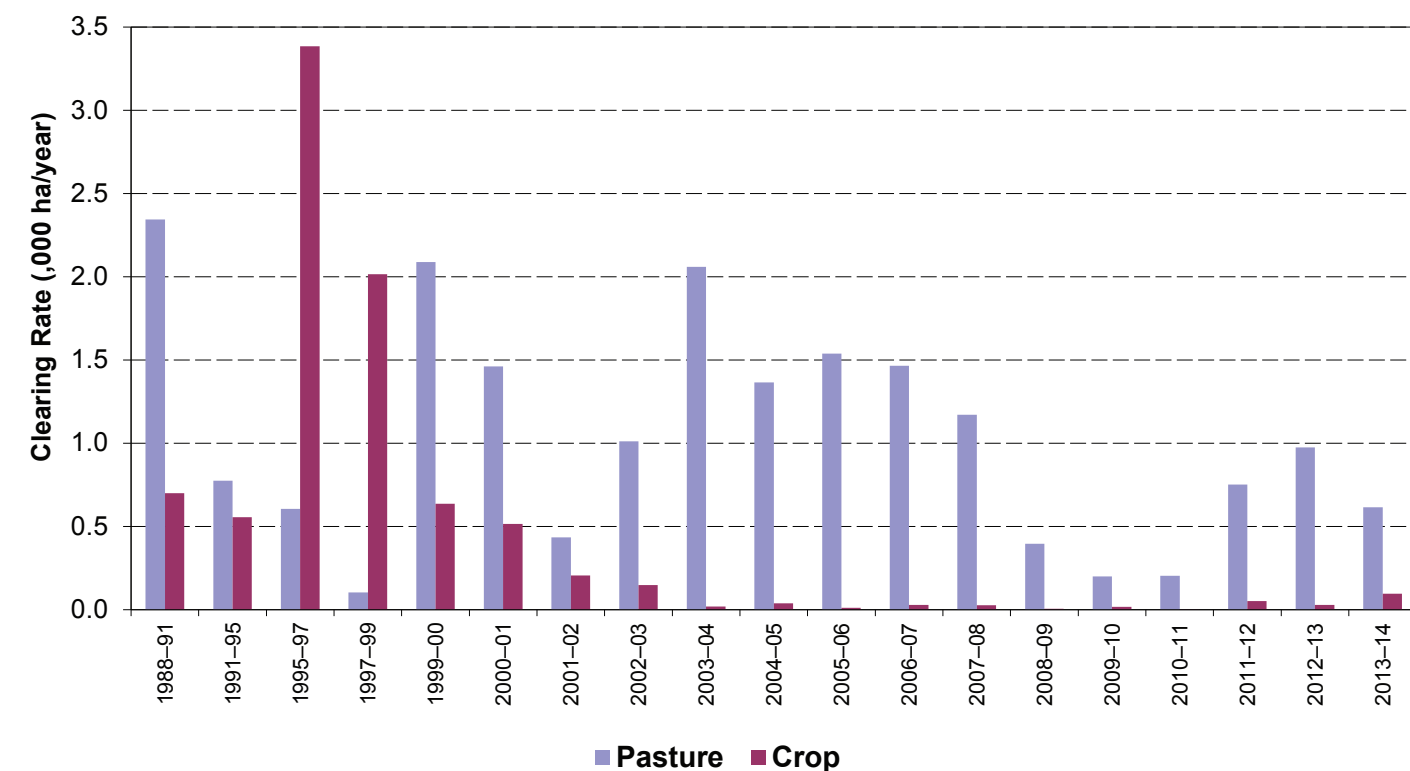
**Table 4. Remaining woody vegetation in the Mackay Whitsundays region by catchment.**

Catchments	Area (,000 ha)	2012 wooded vegetation cover (,000 ha)	% wooded vegetation cover
Misc other islands	21	19	90
O'Connell River	238	166	70
Pioneer River	157	111	71
Plane Creek	253	146	58
Proserpine River	248	178	72
Whitsunday Island	16	10	64
Total	933	631	68

## Woody vegetation clearing by replacement land cover

**Table 5. Woody vegetation clearing rates (,000 ha/year) in the Mackay Whitsundays region by replacement land cover.**

Period	Pasture	Crop	Forestry	Mining	Infrastructure	Settlement	Total
1988–91	2.344	0.699	0.000	0.000	0.972	0.000	4.015
1991–95	0.774	0.556	0.015	0.000	0.024	0.005	1.374
1995–97	0.605	3.385	0.002	0.000	0.317	0.000	4.310
1997–99	0.104	2.016	0.000	0.002	0.040	0.000	2.163
1999–00	2.089	0.636	0.005	0.000	0.123	0.015	2.868
2000–01	1.462	0.515	0.014	0.002	0.073	0.000	2.067
2001–02	0.435	0.206	0.000	0.000	0.061	0.009	0.712
2002–03	1.012	0.147	0.000	0.000	0.019	0.007	1.185
2003–04	2.059	0.018	0.000	0.000	0.035	0.038	2.150
2004–05	1.366	0.038	0.001	0.002	0.040	0.028	1.475
2005–06	1.539	0.011	0.000	0.000	0.007	0.014	1.570
2006–07	1.466	0.029	0.000	0.000	0.108	0.051	1.654
2007–08	1.170	0.026	0.003	0.000	0.007	0.162	1.368
2008–09	0.396	0.005	0.000	0.000	0.000	0.039	0.441
2009–10	0.199	0.017	0.113	0.000	0.002	0.004	0.336
2010–11	0.203	0.001	0.324	0.001	0.011	0.027	0.567
2011–12	0.751	0.051	0.122	0.003	0.019	0.016	0.961
2012–13	0.975	0.028	0.002	0.013	0.007	0.013	1.038
2013–14	0.615	0.095	0.013	0.000	0.032	0.021	0.776



**Figure 4. Woody vegetation clearing rates (1,000 ha/year) in the Mackay Whitsundays region by replacement land cover.**

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