

Land cover change in the Mackay Whitsundays region 2010–11

Summary

The woody vegetation clearing rate for the Mackay Whitsundays region for 2011–12 was 961 hectares per year (ha/yr), an increase of 69% from the previous era, but still lower than the 2007–08 clearing rate.

For 2011–12, the clearing of remnant woody vegetation accounted for 24% of total clearing in the region.

This era saw clearing to the replacement land cover class of pasture return to the highest proportion, to 78% of the total woody vegetation clearing rate for the region.

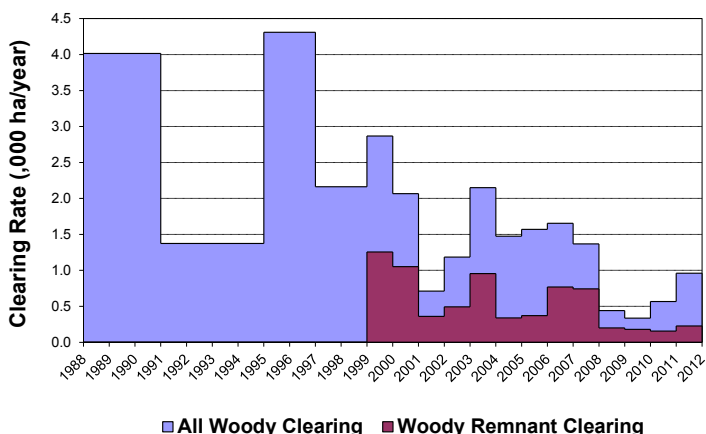


Figure 1. Woody vegetation clearing rates in the Mackay Whitsundays region.

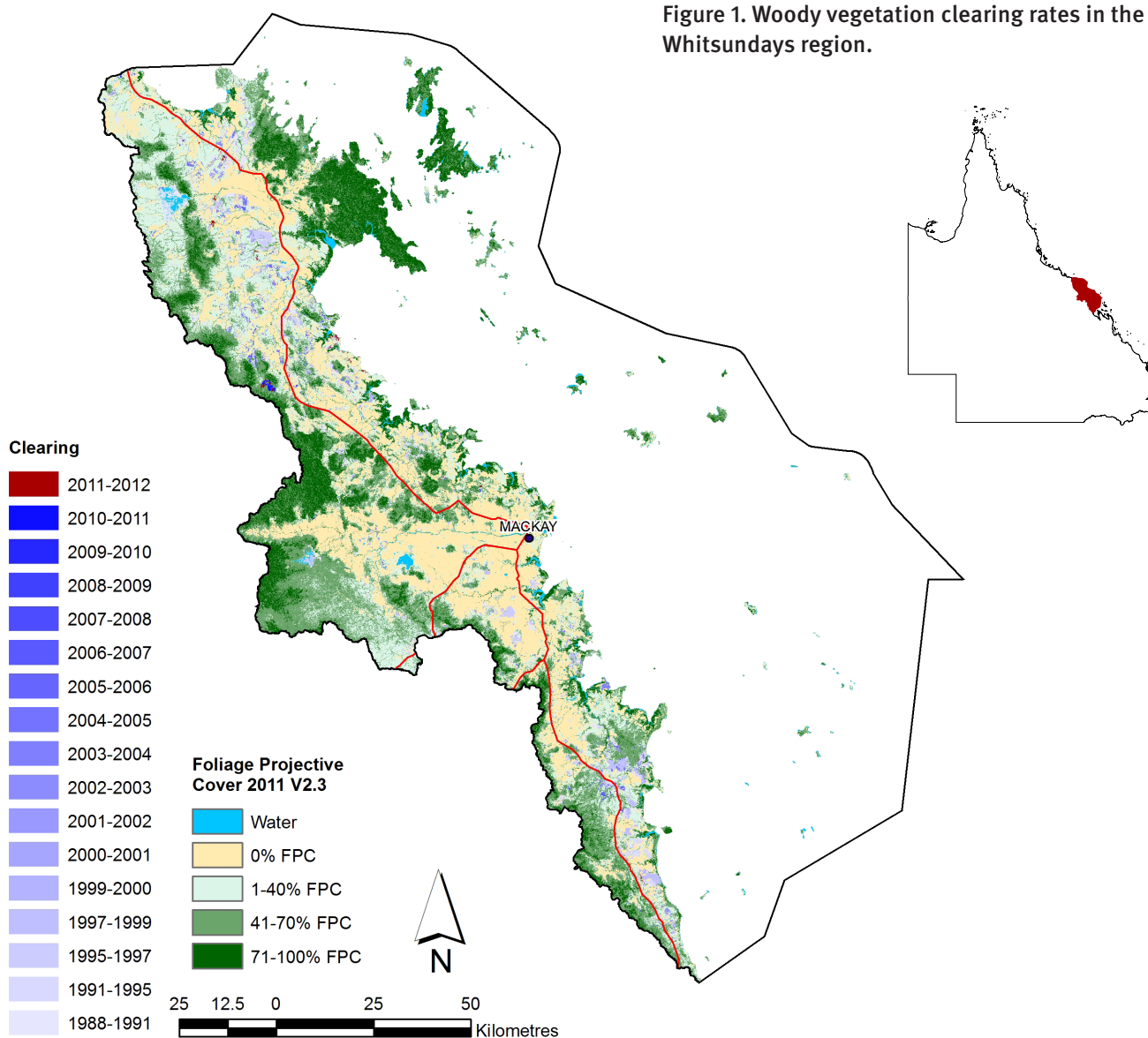


Figure 2. Woody vegetation clearing for each change period.

Woody vegetation clearing by remnant status

Table 1. Remnant and non-remnant woody vegetation clearing rates in the Mackay Whitsundays region.

Period	Woody vegetation clearing rate (,000 ha/yr) of		
	Non-remnant woody	Remnant woody*	Total woody
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

* Regional ecosystem remnant mapping prior to 1999 not used in this analysis.

Woody vegetation clearing by tenure

Table 2. Woody vegetation clearing rates in the Mackay Whitsundays region by tenure.

Period	Woody vegetation clearing rate (,000 ha/yr) on				
	Freehold	Leasehold	Reserves	Other tenures	Total
1988–91	2.755	0.497	0.013	0.689	3.954
1991–95	1.051	0.228	0.018	0.008	1.304
1995–97	4.054	0.233	0.007	0.001	4.294
1997–99	1.976	0.161	0.002	0.006	2.144
1999–00	2.688	0.169	0.011	0.000	2.868
2000–01	1.811	0.236	0.019	0.000	2.067
2001–02	0.667	0.044	0.000	0.000	0.712
2002–03	0.913	0.268	0.000	0.003	1.185
2003–04	2.000	0.142	0.007	0.000	2.150
2004–05	1.417	0.053	0.005	0.000	1.475
2005–06	1.515	0.055	0.000	0.000	1.570
2006–07	1.211	0.428	0.016	0.000	1.654
2007–08	1.196	0.167	0.006	0.000	1.368
2008–09	0.369	0.071	0.001	0.000	0.441
2009–10	0.176	0.040	0.120	0.000	0.336
2010–11	0.204	0.031	0.333	0.000	0.568
2011–12	0.781	0.058	0.122	0.000	0.961

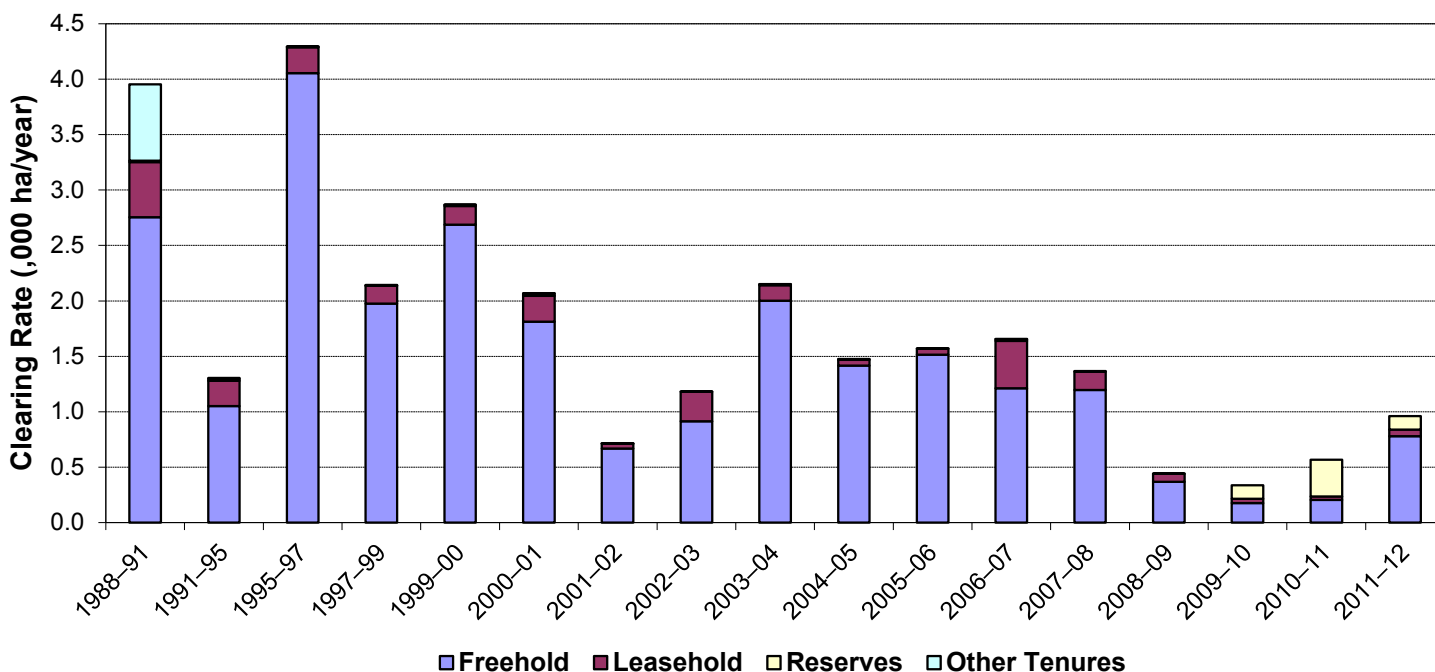


Figure 3. Woody vegetation clearing rates in the Mackay Whitsundays region by tenure.

Woody vegetation clearing by subcatchment

Table 3. Woody vegetation clearing rates in the Mackay Whitsundays region by subcatchment #.

Woody vegetation clearing rate (,000 ha/yr) for	Period				
	2007–08	2008–09	2009–10	2010–11	2011–12
Misc other islands	0.009	0.000	0.000	0.000	0.000
O’Connell River	0.543	0.190	0.168	0.392	0.476
Pioneer River	0.084	0.032	0.030	0.038	0.034
Plane Creek	0.276	0.087	0.066	0.074	0.132
Proserpine River	0.453	0.131	0.071	0.063	0.318
Whitsunday Island					0.001
Total	1.368	0.440	0.336	0.567	0.961

Please refer to Figure 25 and Table 19 of the main report (DSITIA, 2014) for the location of each subcatchment.

Remaining woody vegetation

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

	Catchment area (,000 ha)	Area woody 2011 V2.3 (,000 ha)	% of catchment woody in 2011
Misc other islands	21	19	90
O’Connell River	238	166	70
Pioneer River	157	111	71
Plane Creek	253	147	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 in the Mackay Whitsundays region by replacement land cover.

Period	Woody vegetation clearing rate (,000 ha/yr) for						
	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

* Total excludes natural tree death.

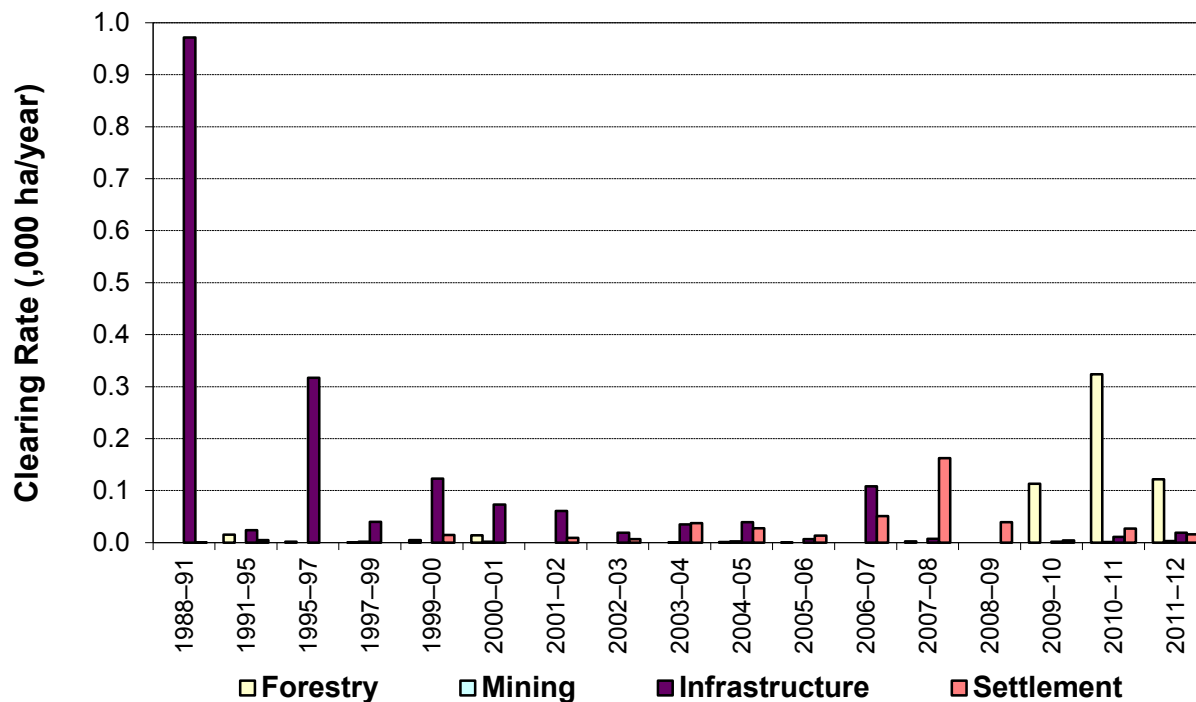
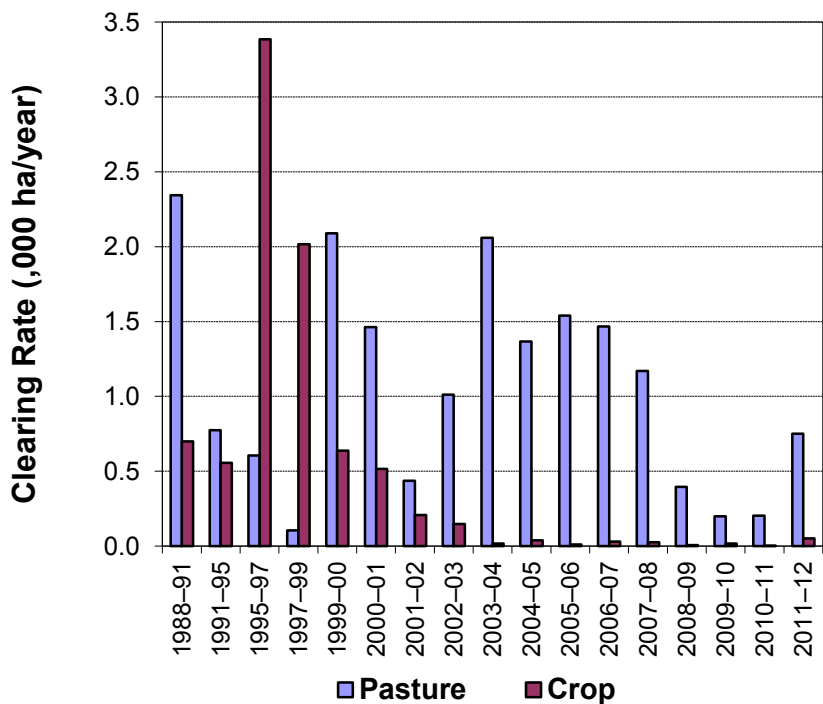


Figure 4. Woody vegetation clearing rates in the Mackay Whitsundays region by replacement land cover.

This fact sheet is 9 of 13 in a series detailing land cover change in Queensland's Natural Resource Management Regions. These fact sheets are addenda to the report: Department of Science, Information Technology, Innovation and the Arts (2012). *Land cover change in Queensland 2011-12: a Statewide Landcover and Trees Study (SLATS) Report, May/June, 2012*. Department of Science, Information Technology, Innovation and the Arts, Brisbane.

Please refer to this report for further background, methods and explanatory notes.

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