

14

Planning and land use

This chapter describes the existing land use patterns within the study area and the potential impacts of the Proposal. The potential land use impacts have been addressed in more detail in a Land use, planning and socio-economic report (working paper 4, Appendix F). Planning policies relevant to the Proposal that may influence land use outcomes at a strategic level including the *Coffs Harbour Highway Planning Strategy*, and the *Draft Mid North Coast Regional Strategy 2006-31* are identified in Chapter 2 of this report and are not discussed further here.

14.1 Existing land use

Land use within the study area is diverse, changing from predominantly medium density tourist facilities and residential development in the south to forestry lands in the north. This is interspersed with the urban settlements of the northern beaches of Coffs Harbour (Moonee Beach, Emerald Beach, Sandy Beach and Woolgoolga), several low density rural residential areas and a variety of rural uses. Agricultural development and rural residential development dominate the bypass section of the Proposal. The study area is bordered to the west and north by state forest including the Orara East State Forest and Wedding Bells State Forest and further to the north-west, the Conglomerate State Forest.

Existing land uses within the study area are shown in Figures 14.1a and 14.1b.

14.1.1 Agricultural land

Agriculture is one of the dominant land uses within the study area, with most activity situated to the west of the existing highway, away from the urban residential and commercial village centres. The two main crops grown within the study area are bananas and blueberries. However, other crops including avocados and tomatoes are grown in the area. A detailed study was undertaken to determine existing agricultural activity and industry influences and to assess potential impacts on agricultural lands (working paper 5, Appendix F). The findings of that study are summarised in Chapter 15.

14.1.2 Commercial land

Commercial properties within the study area comprise both local resident-oriented services and tourist services. Along the existing highway, there are resorts, motels and service stations that accommodate the passing traffic / tourist trade.

Within the northern beaches village areas, there are shopping centres, cafes, clothing and grocery shops catering predominantly for the local residents, but also for tourists.

Woolgoolga provides the largest and most diverse range of commercial services for the town itself as well as for smaller coastal villages to the north (including Mullaway and Arrawarra), and to the south (eg. to Emerald Beach). For settlement areas south of Emerald Beach, Coffs Harbour remains the key commercial centre although the recently completed shopping centre at Moonee Beach is important for the growing population in that area. In south Woolgoolga, there is also a light industrial area which contains a wide range of businesses.

14.1.3 Residential land

There are numerous existing rural residential and urban residential precincts within the study area. The main urban residential areas include Sapphire, Moonee Beach, Emerald Beach, Sandy Beach, Woolgoolga, Safety Beach, Mullaway and Arrawarra. The larger rural residential estates near the Proposal include the west Sapphire area, Forest Glen, Heritage Park, Avocado Heights, Emerald Heights and the Country Club Estate to the west of Woolgoolga. Other smaller rural living areas are scattered through the study area.

In 2001, the number of private dwellings within the Coffs Harbour local government area was 26,437, an increase of nine per cent since 1996 (Coffs Harbour City Council 2004a). Within the study area, there are 5787 private dwellings. The most dominant dwelling type was free-standing housing, accounting for 65 per cent of all dwelling structures within the local government area.

In 2004, the estimated resident population of Coffs Harbour was 66,529 persons. Forecasts for the increase in population indicate that the population could reach 100,000 by the year 2030 (Coffs Harbour City Council 2004a). During 2004 / 2005, the total number of residential dwelling planning approvals granted was 784, an increase of 15.5 per cent from the previous year.

Planning for future residential development is a key responsibility of Coffs Harbour City Council. In its *Land Capacity Assessment 2004*, Council has set out a strategic plan to accommodate the predicted future population growth in the local government area. While it is indicated that the majority of population increases occurring during this time could be accommodated in existing and planned dwellings, there is still a need to plan for an increase in new residential dwellings. In its *Draft Settlement Strategy*, Council has provided strategies to address the future needs of the projected population. The highway Proposal has been included in Council's *Draft Settlement Strategy*.

14.1.4 Forest land

Wedding Bells State Forest, Conglomerate State Forest and the Orara State Forest form the northern and western boundaries of the urban and rural development of coastal villages and estates within the study area. Bisecting the Wedding Bells State Forest and Conglomerate state forests is the state heritage listed Sherwood Nature Reserve (refer Figures 14.1a and 14.1b).

The forests are commercially logged for timber (native species), but also provide for the conservation of old growth and significant forests. The forests are also a tourist attraction with many self-guided tours as well as activities such as bird-watching. Coffs Harbour City Council estimated that state forests and nature reserves comprised 44 per cent of the local government area in 2004 (Coffs Harbour City Council 2004c).

The Orara East State Forest is directly affected by the Proposal in the vicinity of Bucca Road and the Wedding Bells State Forest is directly affected by the Woolgoolga bypass section of the Proposal. Orara East State Forest has an approximate area of 4,470 hectares and Wedding Bells State Forest has an approximate area of 5,371 hectares. Table 14.1 identifies the Forestry Management Zones within the State Forests and the management objective(s) for each zone.

TABLE 14. 1 DESCRIPTION OF FORESTRY MANAGEMENT ZONES WITHIN ORARA EAST AND WEDDING BELLS STATE FORESTS

FORESTRY MANAGEMENT ZONE		MANAGEMENT OBJECTIVE(S)
1	(dedicated reserve / special protection)	Management to maximise protection of very high natural and cultural conservation values. Not available for timber harvesting.
2	(informal reserve (special management))	Specific management and protection of natural and cultural conservation values where it is not possible or practical to include them in zone 1. Not available for timber harvesting.
3a	(informal reserve (harvest exclusion))	Management for conservation of identified values and / or ecosystems and their natural processes. Areas where harvesting is excluded but other management and production activities not permitted in zone 1 or 2 may be appropriate (e.g. grazing or mineral exploration).
3b	(special prescription)	Management for conservation of identified values and / or ecosystems and their natural processes. The zone is available for timber harvesting but minimised in design and implementation to maintain or enhance the values that the area is zoned to protect.
4	(general management native forest)	Management of native forests for timber production utilising the full range of silvicultural options as appropriate; and conservation of broad area habitat and environmental values which are not dependent on the structure of the forest. Available for timber harvesting.
5	(hardwood planted forest estate)	Management of hardwood plantations to maximise sustainable timber production on a continuing cyclical basis.
6	(softwood planted forest estate)	Management of softwood plantations to maximise sustainable timber production on a continuing cyclical basis.
7	(non forestry use)	Management of cleared (non-forested) areas, such as those used for special developments.
8	(land for further assessment)	An interim zoning of areas where field investigation is required to determine final Forest Management Zone classification.

Table 14.2 provides the approximate area of each Forestry Management Zone within the Wedding Bells and Orara East State Forests.

TABLE 14.2 APPROXIMATE AREA OF FORESTRY MANAGEMENT ZONES WITHIN ORARA EAST AND WEDDING BELLS STATE FORESTS

FORESTRY MANAGEMENT ZONE	TOTAL AREA	
	ORARA EAST SF	WEDDING BELLS SF(HECTARES)
1 (dedicated reserve / special protection)	421	83
2 (informal reserve (special management))	60	305
3a (informal reserve (harvest exclusion))	556	511
3b (special prescription)	3	47
4 (general management native forest)	2,320	3,172
5 (hardwood planted forest estate)	478	414
6 (softwood planted forest estate)	0	2
7 (non forestry use)	35	71
8 (land for further assessment)	584	607
Unknown forestry management zone	13	159
Total	4470	5371

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Refer Figures 14.1a and 14.1b

14.1.5 Environmental protection and open space

Within the study area, open space zones in and near urban centres comprise mainly playing fields, golf course and parks. Environmental protection zones include habitat and catchment zones, scenic buffer zones and coastal zones. The purpose of the habitat and catchment zones is to protect and enhance sensitive natural habitat and waterway catchments. They are generally located around watercourses, including those that fall within the boundary of the Solitary Islands Marine Park. Potential impacts on the Solitary Islands Marine Park are assessed in Chapter 13. Scenic buffer zones are primarily located along the sides of the Pacific Highway. Coastal protection areas are found along the coast, protecting beaches and ocean-facing land from development.

14.2 Land use planning

The general pattern of land use in the study area as summarised above, is controlled mainly through zoning provisions in the *Coffs Harbour Local Environmental Plan 2000* and the *Ulmarra Local Environmental Plan 1992*. The Proposal is mostly within the Coffs Harbour local environmental plan, however, at the northern end, about 200 metres is within the Ulmarra local environment plan area. The current zoning in the vicinity of the Proposal includes:

- Residential zones: 1B rural living, 2A residential low density and 2E residential tourist.
- Rural zone: 1A rural (agriculture).
- Forestry zone: 1F rural (state forest).

Because the Proposal is assessed as critical infrastructure under the provisions of Part 3A of the *Environmental Planning & Assessment Act 1979*, there is no requirement to specifically determine permissibility in terms of the land use zones through which it traverses.

Under provisions of the Coffs Harbour local environmental plan, the council has also prepared development control plans for several locations in the study area. They provide greater detail to guide the orderly release and development of land in those areas and include:

- Korora rural residential development control plan (2004) – this plan came into force in 2004, with subsequent amendments being made in 2006. The plan is for the development of rural-residential development to the west of the existing highway at Korora, covering an area from West Korora Road in Coffs Harbour to The Mountain Way in Sapphire. It is anticipated that it would accommodate approximately 1500 persons.
- Moonee development control plan (2004) – this plan was approved before the selection of the preferred route. It includes substantial new urban release areas including one precinct to the east of the existing highway between Sapphire and Moonee Beach, one between Moonee Beach and Skinners Creek and another to the west of the existing highway near Hoys Road / Old Bucca Road. The potential population to be accommodated in these areas is approximately 4500 persons.
- Hearnes Lake / Sandy Beach development control plan (2005) – this more recently approved plan was prepared with the knowledge of the preferred highway option. It includes several precincts on both sides of the highway generally between Sandy Beach and south Woolgoolga. The potential population to be accommodated in these areas is approximately 1352 persons.
- West Woolgoolga development control plan (2004) – this approved plan is located west of Woolgoolga and east of the Country Club between Woolgoolga Creek and Newmans Road. The potential population to be accommodated in this area is approximately 940 persons.

Coffs Harbour City Council has also delineated a large area at south Woolgoolga, generally west of the existing highway and north of Unwins Road, as an urban investigation area. The area is currently dominated by banana plantations and there is no formal development plan.

14.3 Potential impacts of the Proposal on land use

Potential impacts of the Proposal relating to land use require consideration of the following aspects:

- Land use change.
- Forest land.
- Property acquisition.
- Access arrangements.

There would also be a range of land use related amenity impacts, particularly for owners, occupants and operators of properties along and near the Proposal as well as for properties along and near the bypassed section of existing highway through Woolgoolga and Safety Beach. These expected amenity changes include impacts associated with traffic volumes (assessed in Chapter 10) traffic noise (assessed in Chapter 11), landscape alteration (assessed in Chapter 19) and air quality (assessed in Chapter 20).

14.3.1 Land use change

Implementation of the Proposal would result in a total highway corridor area of approximately 308 hectares. This would entail the conversion of approximately 163 hectares of land currently committed to the range of uses and development identified above. The balance of approximately 157 hectares is already part of the existing highway road reserve.

The upgrade section of the Proposal from Sapphire to south Woolgoolga makes full use of the existing highway road reserve and there is also a requirement for many property acquisitions (partial and some whole). Notwithstanding the land required, there would be minimal impact on the general land use pattern in this southern part of the study area. Similarly, while the bypass section of the Proposal would rely entirely on acquisition of mainly rural and forestry lands to establish a new highway road reserve, it also would not result directly in changes in the existing pattern of land use and development through that northern part of the study area.

The Proposal would not directly impact on any of the areas covered by approved development control plans along the corridor, and there is no indication that the envisaged urban developments within the development control plan areas would be prohibited because of the highway.

Future land use impacts

Land use change in the study area and in the vicinity of the Proposal is subject to strategic planning initiatives and statutory controls prepared by both Coffs Harbour City Council and the Department of Planning. As such, the Proposal is unlikely to have any direct impact on land use patterns along the route (except for the acquired land). However, the Proposal would provide vital transport infrastructure that supports local and regional economic development into the future. In this regard, the Proposal would be consistent with the urban development plans for the northern beaches area of Coffs Harbour.

14.3.2 Forest land

Forest operations

The Proposal would require the acquisition of approximately 39 hectares of State Forest land. Tables 14.3 and 14.4 provide a breakdown of State Forest land affected (by Forestry Management Zone) for Orara East State Forest and Wedding Bells State Forest respectively. Property acquisition as it relates to State Forest land is discussed in Section 4.5.2 of this report.

TABLE 14.3 APPROXIMATE AREA (AND PROPORTION) OF ORARA EAST STATE FOREST AFFECTED (BY FORESTRY MANAGEMENT ZONE)

FORESTRY MANAGEMENT ZONE	TOTAL AREA (HECTARES)	AREA AFFECTED (HECTARES)	PROPORTION AFFECTED
1 (dedicated reserve / special protection)	421	0	0
2 (informal reserve (special management))	60	0	0
3a (informal reserve (harvest exclusion))	556	0	0
3b (special prescription)	3	0	0
4 (general management native forest)	2,320	1.53	0.07%
5 (hardwood planted forest estate)	478	0	0
6 (softwood planted forest estate)	0	0	0
7 (non forestry use)	35	0.14	0.41%
8 (land for further assessment)	584	0.45	0.08%
Unknown forestry management zone	13	0	0
Total	4470	2.12	0.05%

TABLE 14.4 APPROXIMATE AREA AND PROPORTION OF WEDDING BELLS STATE FOREST AFFECTED (BY FORESTRY MANAGEMENT ZONE)

FORESTRY MANAGEMENT ZONE	TOTAL AREA (HECTARES)	AREA AFFECTED (HECTARES)	PROPORTION AFFECTED
1 (dedicated reserve / special protection)	83	0	0
2 (informal reserve (special management))	305	0	0
3a (informal reserve (harvest exclusion))	511	0.57	0.11%
3b (special prescription)	47	0.23	0.49%
4 (general management native forest)	3,172	20.87	0.66%
5 (hardwood planted forest estate)	414	0.52	0.12%
6 (softwood planted forest estate)	2	0	0
7 (non forestry use)	71	8.28	11.66%
8 (land for further assessment)	607	6	0.99%
Unknown forestry management zone	159	0	0
Total	5371	36.47	0.68%

The area of Orara State Forest affected by the Proposal is approximately 2.12 hectares, which equates to approximately 0.05 percent of the total area of the forest. The area of Wedding Bells State Forest affected by the Proposal is approximately 36.47 hectares, which equates to approximately 0.68 percent of the total area of the forest. As shown in Tables 14.3 and 14.4 above, the proportion of any Forestry Management Zone affected by the Proposal is relatively minor (less than one percent) except for Forestry Management Zone 7 (non forestry use) within the Wedding Bells State Forest, where the Proposal would affect approximately 12 percent of the total area of that Forestry Management Zone.

Ecological impacts as a result of the Proposal (including to State Forest areas) are discussed in detail in Chapter 17. From the Forestry Management Zone descriptions provided in Table 14.1, only Forestry Management Zones 3b, 4, 5 and (possibly) 8 are considered to be forest harvesting zones. The total area of forest harvesting zones directly affected by the Proposal is approximately 1.98 hectares for Orara East State Forest and approximately 27.62 hectares for Wedding Bells State Forest. This equates to 0.06 percent and 0.65 percent of all potential forest harvesting land within Orara East and Wedding Bells State Forests respectively.

Based on the small proportion of the forest harvesting zones directly affected by the Proposal, it is not anticipated that there would be any substantial impact on timber production activities or the viability of forestry businesses.

The RTA would, in consultation with the Department of Primary Industries (Forests), ensure that access to State Forest land is available to the Department of Primary Industries (Forests) to remove any harvestable timber within the footprint of the Proposal prior to commencement of construction.

Access and severance

There has been ongoing development of the design for the Proposal to ensure retention of all possible access arrangements and to minimise the separation of areas of the State Forest. The design development process has produced the Proposal design that is described in Chapter 7 and includes the following features that specifically relate to the management of potential impacts to State Forest operations:

- At Bark Hut Road, an overpass is proposed over the bypass alignment to allow continued access to the State Forest.
- Through the state forest the alignment would generally be in a low embankment to reduce the width of the Proposal and the amount of clearing required.
- Four fauna underpasses are proposed through the State Forest section.
- As the Proposal would involve the closure of several existing direct accesses from the existing highway into the Wedding Bells State Forest, a forestry operations track would be extended between the existing tracks near Arrawarra Creek and Upper Corindi Road.

The design of the Proposal separates an area of the Wedding Bells State Forest (from approximate Chainage 28.400 kilometres to Chainage 31.700 kilometres). The smaller area of Wedding Bells State Forest separated from the main state forest area has an area of approximately 75 hectares (consisting of Forestry Management Zones 3a (13.9 ha), 3b (3.5 ha), 4 (38.3 ha), 7 (8.4 ha) and 8 (11.3 ha)). The Department of Primary Industries (Forests) has advised that, subject to the availability of access, the Proposal would not significantly affect forestry operations in the area. As access would continue to be available from Tramway Drive and the eastern end of Embankment Road, the separation of this area of State Forest is considered to have a minor impact on forestry operations.

The Proposal would maintain key access arrangements to the State Forest for forest management purposes. Specifically, the Proposal provides for continued access at principal haulage routes that service the Wedding Bells State Forest, and also includes some adjustment to access tracks within the state forest to rationalise access and to improve road safety at the junctions with the highway.

Arrangements for future access into the State Forests have been discussed with the Department of Primary Industries (Forests). The Proposal would not alter existing access arrangements into the Orara East State Forest. Access to the section of Wedding Bells State Forest adjacent to Woolgoolga Creek Road would continue to be available from Woolgoolga Creek Road. Access to the section of Wedding Bells State Forest west of the Proposal would continue to be available from Arrawarra Road, the western end of Embankment Road and Nashs Road. The existing intersection of Nashs Road and the highway would be closed and alternate access to the highway would be provided by new and existing forestry access roads linking the eastern end of Nashs Road with Sherwood Creek Road.

In summary, the Proposal ensures that access to the State Forest is retained not only for truck movements, but also for recreation purposes and fire management activities.

14.3.2 Property acquisition

Property acquisition is discussed briefly as part of the description of the Proposal in Chapter 7 and it is examined in more detail in working paper 4, Appendix F.

The Proposal would involve either partial or total acquisition of 127 properties along the length of the route. Approximately 83 acquisitions would be required along the upgrade section, with the balance being acquired through the bypass section. Table 14.5 is a schedule of properties potentially affected by either partial or total acquisition, and are illustrated in Figures 14.2a to 14.2h.

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Refer Figures 14.2a to 14.2h

TABLE 14.5 PROPERTIES POTENTIALLY AFFECTED BY THE PROPOSAL¹

PROPERTY NUMBER	OWNER	TOTAL PROPERTY AREA (ha)	AREA OF PROPERTY DIRECTLY AFFECTED (ha)	PERCENTAGE OF PROPERTY DIRECTLY AFFECTED
1	Private	2.426	0.511	21.1%
2	Private	1.804	0.814	45.1%
3	Private	1.330	0.390	29.3%
4	Public	2.339	1.402	59.9%
5	Public	0.073	0.073	100.0%
6	Private	0.407	0.129	31.6%
7	Private	6.022	1.350	22.4%
8	Private	4.265	0.635	14.9%
9	Private	0.066	0.066	100.0%
10	Private	0.065	0.065	100.0%
11	Public	0.078	0.078	100.0%
12	Private	0.155	0.155	100.0%
13	Private	0.551	0.551	100.0%
14	Public	0.379	0.379	100.0%
15	Private	0.970	0.076	7.8%
16	Private	1.032	0.319	30.9%
17	Private	4.104	0.187	4.5%
18	Private	0.394	0.197	50.0%
19	Private	0.407	0.407	100.0%
20	Public	0.404	0.404	100.0%
21	Private	4.084	1.495	36.6%
22	Private	9.158	3.862	42.2%
23	Private	3.041	0.231	7.6%
24	Public	0.680	0.077	11.3%
25	Public	2.042	2.042	100.0%
26	Public	2.069	0.944	45.7%
27	Public	2.038	1.248	61.3%
28	Public	0.383	0.383	100.0%
29	Private	2.083	0.237	11.4%
30	Private	1.009	0.097	9.6%
31	Private	0.420	0.046	10.9%
32	Private	12.021	0.071	0.6%
33	Private	9.200	0.435	4.7%
34	Private	0.410	0.078	18.9%
35	Private	0.411	0.105	25.5%
36	Private	0.410	0.116	28.2%
37	Private	4.196	0.491	11.7%
38	Private	10.155	0.361	3.6%
39	Private	40.483	0.214	0.5%
40	Private	16.668	0.599	3.6%
41	Private	6.297	2.562	40.7%
42	Private	2.492	1.719	69.0%
43	Private	11.307	1.403	12.4%
44	Private	4.068	0.163	4.0%
45	Public	0.325	0.069	21.2%
46	Private	0.405	0.076	18.7%
47	Private	0.412	0.017	4.1%
48	Private	1.607	0.698	43.4%
49	Private	7.930	0.463	5.8%
50	Public	10.102	0.473	4.7%
51	Private	17.392	0.858	4.9%
52	Public	4879.028	2.126	<0.1%
53	Public	1.099	0.212	19.3%
54	Private	1.787	0.211	11.8%
55	Private	44.158	1.789	4.1%
56	Private	24.814	1.099	4.4%
57	Public	2.853	0.512	17.9%
58	Private	37.044	0.714	1.9%
59	Private	4.322	0.584	13.5%
60	Private	85.282	3.840	4.5%

PROPERTY NUMBER	OWNER	TOTAL PROPERTY AREA (ha)	AREA OF PROPERTY DIRECTLY AFFECTED (ha)	PERCENTAGE OF PROPERTY DIRECTLY AFFECTED
61	Private	0.575	0.323	56.2%
62	Private	0.492	0.078	15.8%
63	Public	4.580	2.211	48.3%
64	Private	47.331	0.928	2.0%
65	Private	3.068	0.502	16.4%
66	Public	80.731	0.074	0.1%
67	Private	13.283	1.417	10.7%
68	Private	2.134	0.295	13.8%
69	Private	0.468	0.468	100.0%
70	Private	1.672	1.028	61.4%
71	Private	0.575	0.575	100.0%
72	Private	0.131	0.131	100.0%
73	Public	7.530	0.175	2.3%
74	Private	1.587	0.012	0.8%
75	Private	31.299	1.419	4.5%
76	Private	12.884	1.252	9.7%
77	Private	0.060	0.015	25.0%
78	Private	0.056	0.056	100.0%
79	Private	40.761	0.099	0.2%
80	Private	2.151	0.510	23.7%
81	Private	9.966	1.457	14.6%
82	Private	6.152	1.552	25.2%
83	Private	6.410	1.149	17.9%
84	Private	10.152	0.703	6.9%
85	Public	0.406	0.406	100.0%
86	Private	0.394	0.394	100.0%
87	Private	24.843	4.882	19.6%
88	Private	4.092	3.516	85.9%
89	Private	2.277	0.199	8.7%
90	Private	3.811	2.084	54.7%
91	Private	3.304	0.047	1.4%
92	Private	8.959	3.697	41.3%
93	Private	10.843	0.870	8.0%
94	Private	7.353	1.733	23.6%
95	Private	4.993	0.136	2.7%
96	Private	4.367	1.359	31.1%
97	Private	2.217	1.675	75.5%
98	Private	2.195	0.689	31.4%
99	Private	2.709	0.062	2.3%
100	Private	2.170	0.832	38.3%
101	Private	2.080	0.771	37.1%
102	Private	1.903	0.335	17.6%
103	Private	2.351	0.161	6.8%
104	Private	2.462	1.209	49.1%
105	Public	30.274	5.783	19.1%
106	Public	14.190	3.059	21.6%
107	Private	2.574	0.345	13.4%
108	Private	22.844	2.284	10.0%
109	Private	61.034	1.642	2.7%
110	Private	5.195	2.384	45.9%
111	Private	13.168	1.375	10.4%
112	Private	6.714	3.557	53.0%
113	Private	6.408	1.925	30.0%
114	Private	6.856	2.524	36.8%
115	Private	3.971	0.513	12.9%
116	Private	6.031	6.031	100.0%
117	Public	2.551	2.097	82.2%
118	Private	2.364	0.403	17.0%
119	Public	0.268	0.268	100.0%
120	Public	0.378	0.378	100.0%

PROPERTY NUMBER	OWNER	TOTAL PROPERTY AREA (ha)	AREA OF PROPERTY DIRECTLY AFFECTED (ha)	PERCENTAGE OF PROPERTY DIRECTLY AFFECTED
121	Private	2.169	0.489	22.5%
122	Private	2.389	1.195	50.0%
123	Public	10.177	6.336	62.3%
124	Private	99.163	3.022	3.0%
125	Private	11.554	1.261	10.9%
126	Public	3111.582	20.626	0.7%
127	Public	32.307	7.334	22.7%

¹ As at 20 September 2007

The NSW Roads and Traffic Authority (RTA) would acquire the required properties in accordance with its *Land Acquisition Policy* (Appendix D) and compensation would be determined in accordance with the *Land Acquisition (Just Terms) Compensation Act 1991*. In the case of state forest lands, acquisition would be undertaken in accordance with the *Forestry Act 1916* (refer Section 4.5.2).

14.3.3 Access arrangements

The relationship between traffic and land use and in particular, the potential impact on the local road network through the study area has been a vital consideration in the development of the Proposal. The local road network is fundamental to land use and as such, has a basic influence on the social and economic activity of communities in the study area. At a more detailed level, the Proposal would also have implications for many direct highway accesses to individual properties as well as access within large rural holdings that are directly affected.

Local road network

A detailed description of the access arrangements which have been incorporated into the design is presented in Chapter 7.

In order to achieve essential travel safety and efficiency along the redeveloped highway, it was necessary to rationalise the large number of existing highway access points. A key design objective was for the Proposal to have full access control, involving closure of all intersections with the highway and the construction of the five grade-separated interchanges located at Sapphire, Moonee Beach, Emerald Beach, south Woolgoolga and Arrawarra. The exception to this arrangement would be two at-grade intersections at the very southern end of the Proposal so that local access requirements can be effectively integrated with the existing dual carriageway at Korora.

There would also be a requirement for temporary left-in / left-out property accesses at properties within the Moonee Beach development control plan and the West Korora rural residential development control plan (refer Section 7.4.3). These would be removed when the affected properties can be linked to planned new local roads to be developed as part of planned urban releases.

The proposed access arrangements would result in many changes to local travel patterns in the study area. Local traffic would be able to access the highway only at the controlled entry points onto the highway which are designed to improve the access and safety of local traffic moving along the highway. Local access roads would be constructed next to the highway to accommodate local traffic. This would remove the need for local traffic to negotiate the faster flowing highway and heavy vehicle traffic, making local movement along the northern beaches from Sapphire to Woolgoolga more pleasant and safer. The local access road network (refer Section 7.4.3), would also provide individual property access for properties who currently have access onto the existing highway and access to local streets and villages.

The reduced number of road and access connections to the highway may result in incrementally longer travel distances to and from many properties. The increased control of access points, however, would result in substantially improved safety benefits compared to the many potential conflict locations along the existing highway.

Along the bypass section, the Proposal would cross five local roads that provide access to rural properties west of Woolgoolga. There would be no direct access connection from these local roads to the bypass, except for an emergency vehicle access point at Newmans Road. In order to maintain local access to the subject areas, the design has included the following arrangements:

- Underpass of the proposed highway at Unwins Road.
- Overbridge across the proposed highway at Greys Road.
- Overbridge across the proposed highway at Woolgoolga Creek Road.
- Underpass of the proposed highway at Newmans Road.
- Overbridge across the proposed highway at Bark Hut Road.

These roads would therefore continue to provide access into Woolgoolga and the bypassed section of the existing highway. Access to the bypass section of the Proposal would then be via the northern interchange at Arrawarra or the southern interchange at south Woolgoolga.

The transfer of through traffic from the existing highway to the bypass would result in improved accessibility on the local road network around Woolgoolga for vehicles, pedestrians and cyclists.

Individual property access

Internal property access is a concern mainly on the larger rural properties which would be severed by the Proposal. The nature of the severance caused by the Proposal would generally determine the extent of acquisition by the RTA, including whether it would be a partial or a total acquisition. In cases where partial acquisition has been proposed and internal property access is affected, appropriate property adjustments would be made or allowed for as part of the compensation to the owner.

14.4 Proposed management measures

The key measures that have been developed to mitigate adverse land use and property impacts are essentially design related and they have been incorporated into the Proposal. They include:

- Five grade-separated interchanges that have been strategically located along the route to complement the major existing and planned urban land use areas of the study area.
- A local access road that extends the full length of the upgrade section of the route from Sapphire to south Woolgoolga.
- Modification to numerous local roads where they are crossed by the bypass section so as to maintain the function of the local network in serving land use either side of the route.
- Adjustments to numerous internal property access arrangements where they are directly affected by the Proposal.
- Acquisition of the whole or part of properties affected by the highway where practical, cost effective access adjustments cannot be implemented.

These features could potentially be altered during the detailed design phase, and in some cases, through discussions between individual property owners and the RTA.

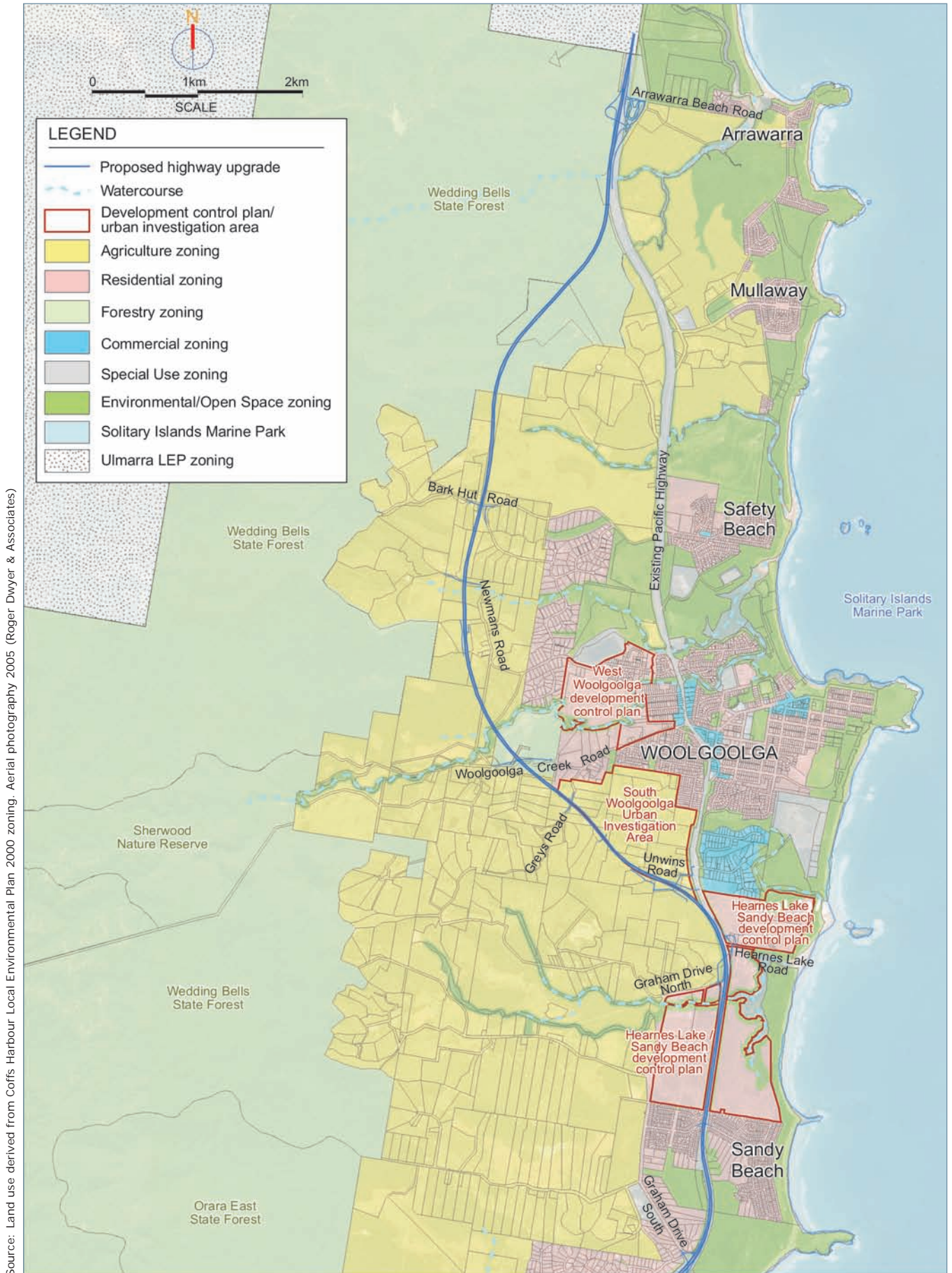
In addition, the draft Statement of Commitments (Appendix A) includes the following management measures:

- (i) The Department of Primary Industries (Forests) will have access to areas of State Forest land identified for acquisition by the RTA to remove any harvestable timber within the footprint of the Proposal prior to commencement of construction.
- (ii) In consultation with the Department of Primary Industries (Forests), access to and within State Forest lands adjacent to the Proposal will be retained for forestry operations, fire management activities and recreation purposes.



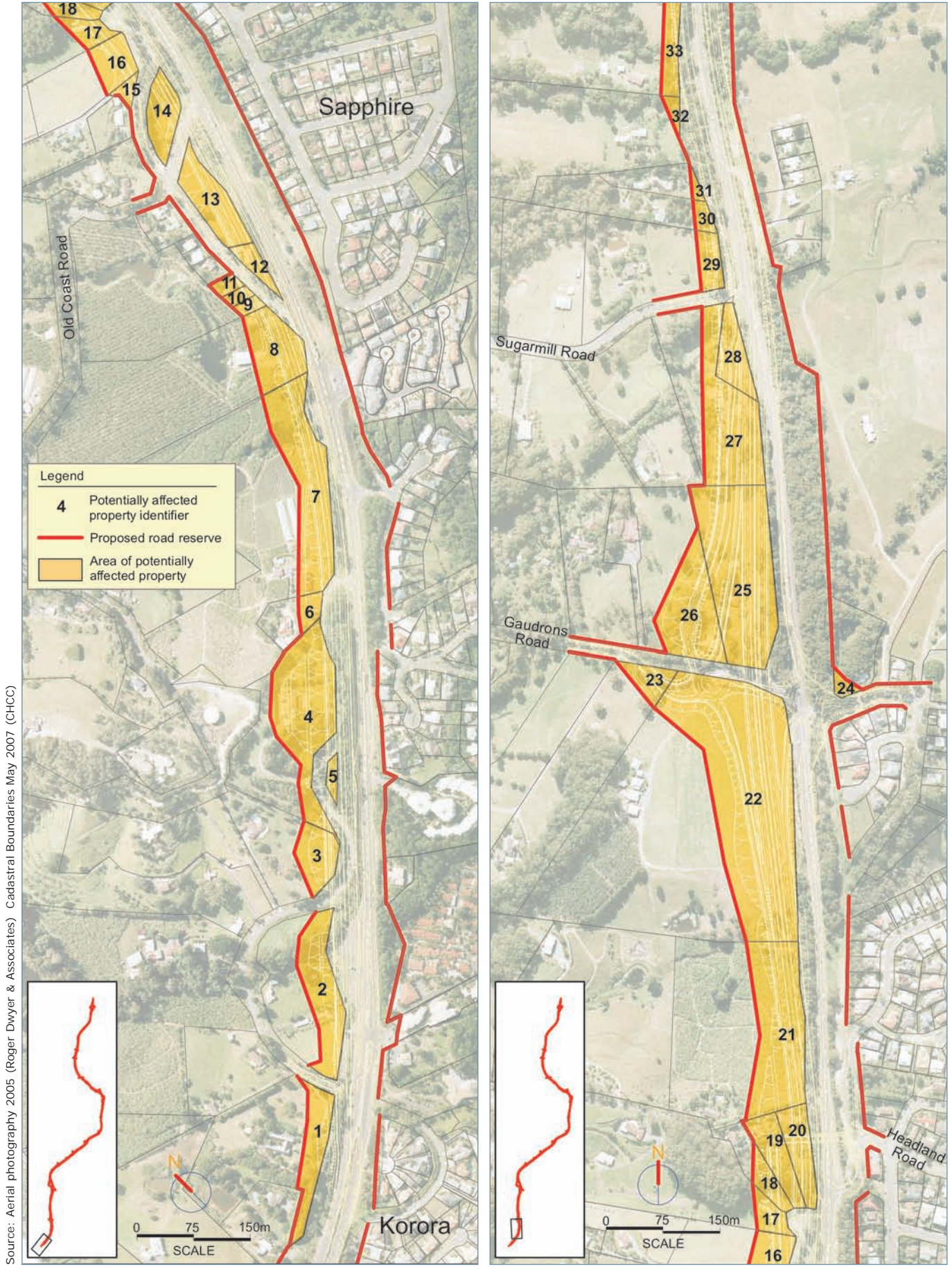
Source: Land use derived from Coffs Harbour Local Environmental Plan 2000 zoning. Aerial photography 2005 (Roger Dwyer & Associates)

FIGURE 14.1a EXISTING LAND USE



Source: Land use derived from Coffs Harbour Local Environmental Plan 2000 zoning. Aerial photography 2005 (Roger Dwyer & Associates)

FIGURE 14.1b EXISTING LAND USE



Source: Aerial photography 2005 (Roger Dwyer & Associates) Cadastral Boundaries May 2007 (CHCC)

FIGURE 14.2a POTENTIALLY AFFECTED PROPERTIES

Source: Aerial photography 2005 (Roger Dwyer & Associates) Cadastral Boundaries May 2007 (CHCC)

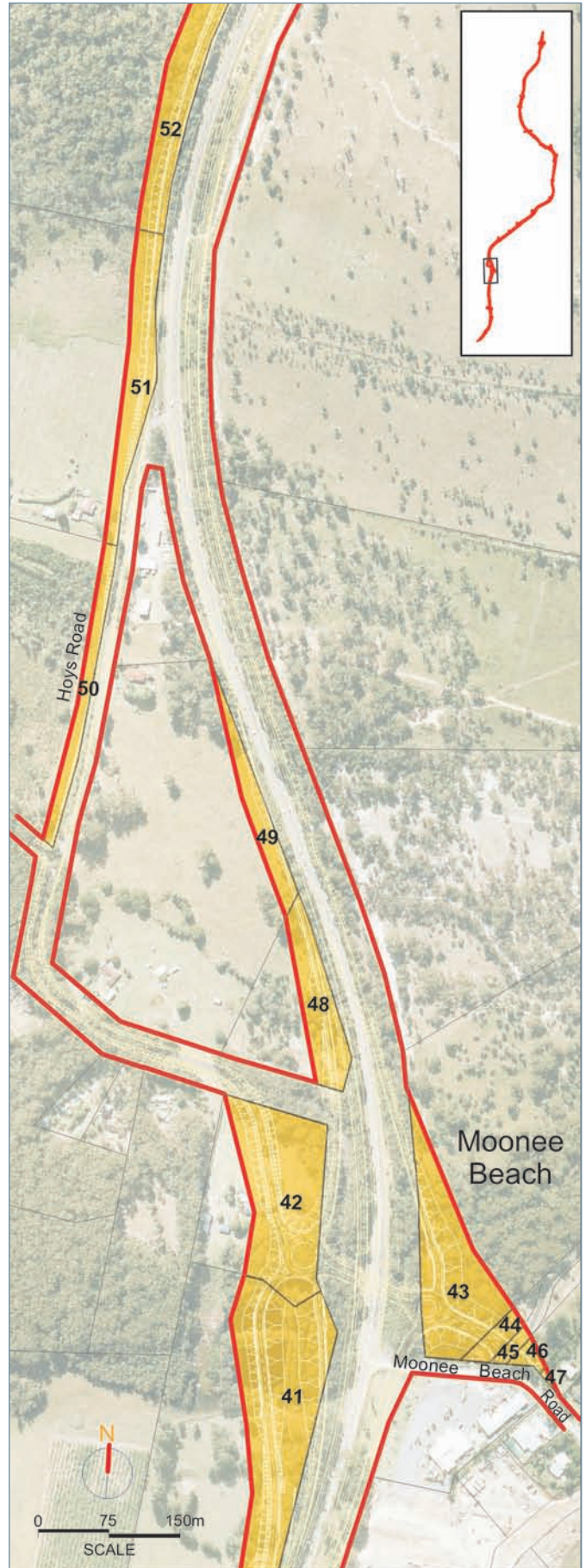
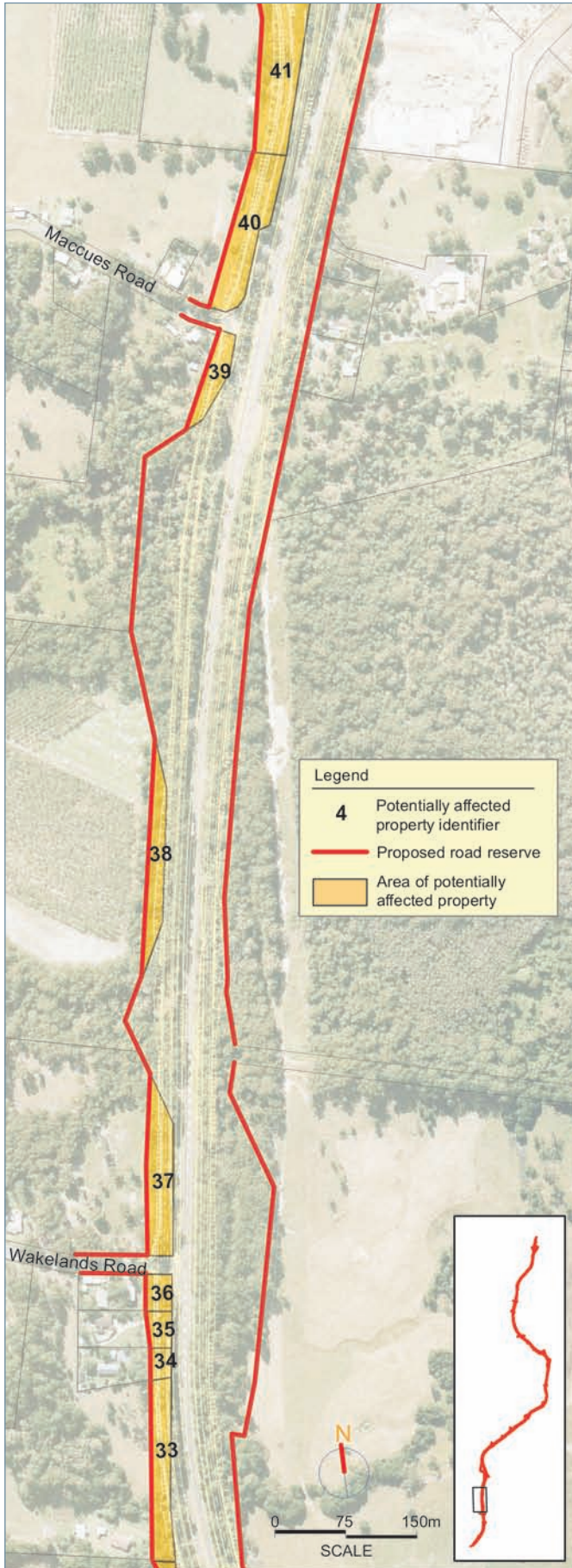


FIGURE 14.2b POTENTIALLY AFFECTED PROPERTIES

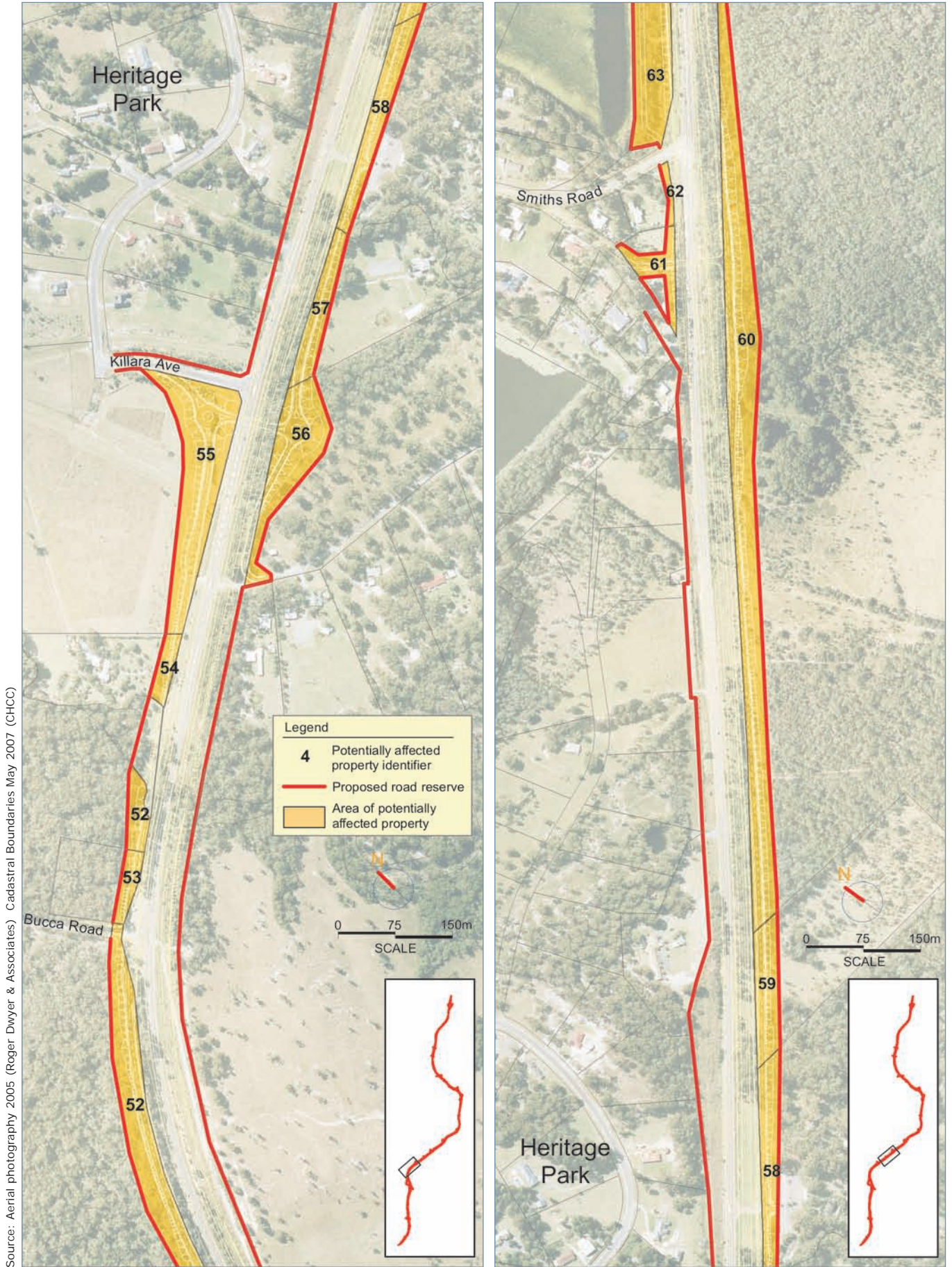


FIGURE 14.2c POTENTIALLY AFFECTED PROPERTIES

Source: Aerial photography 2005 (Roger Dwyer & Associates) Cadastral Boundaries May 2007 (CHCC)

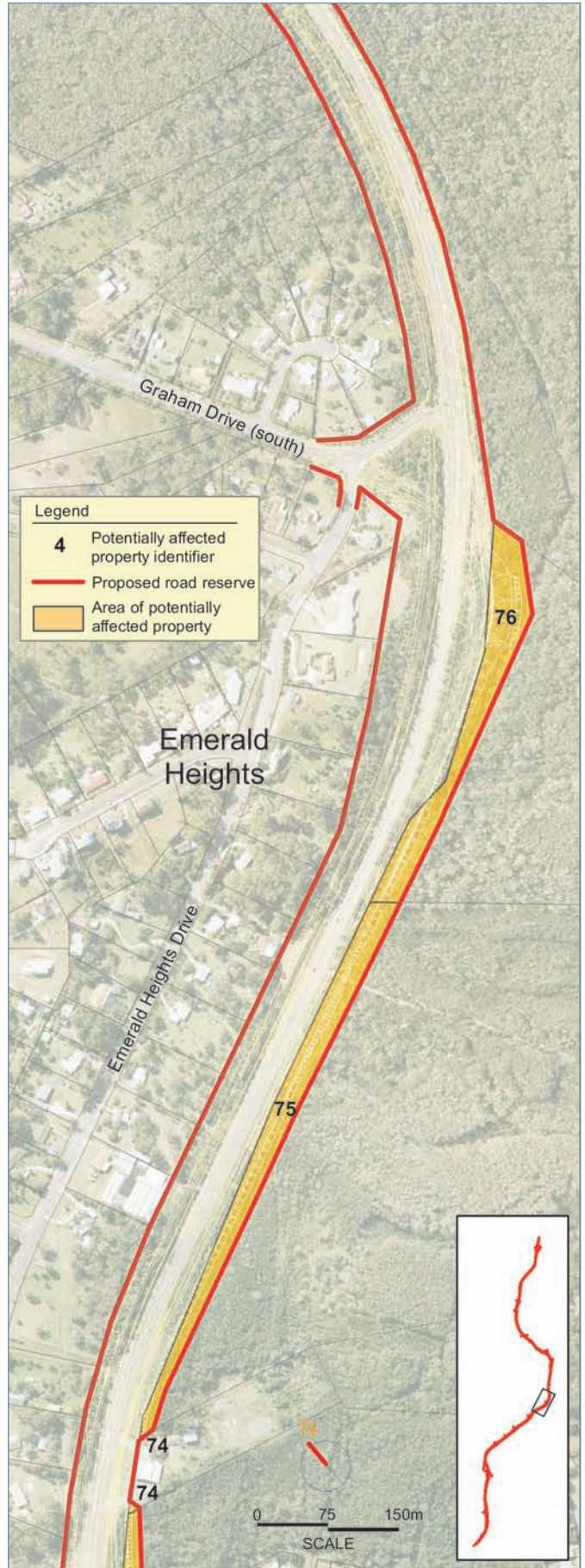


FIGURE 14.2d POTENTIALLY AFFECTED PROPERTIES

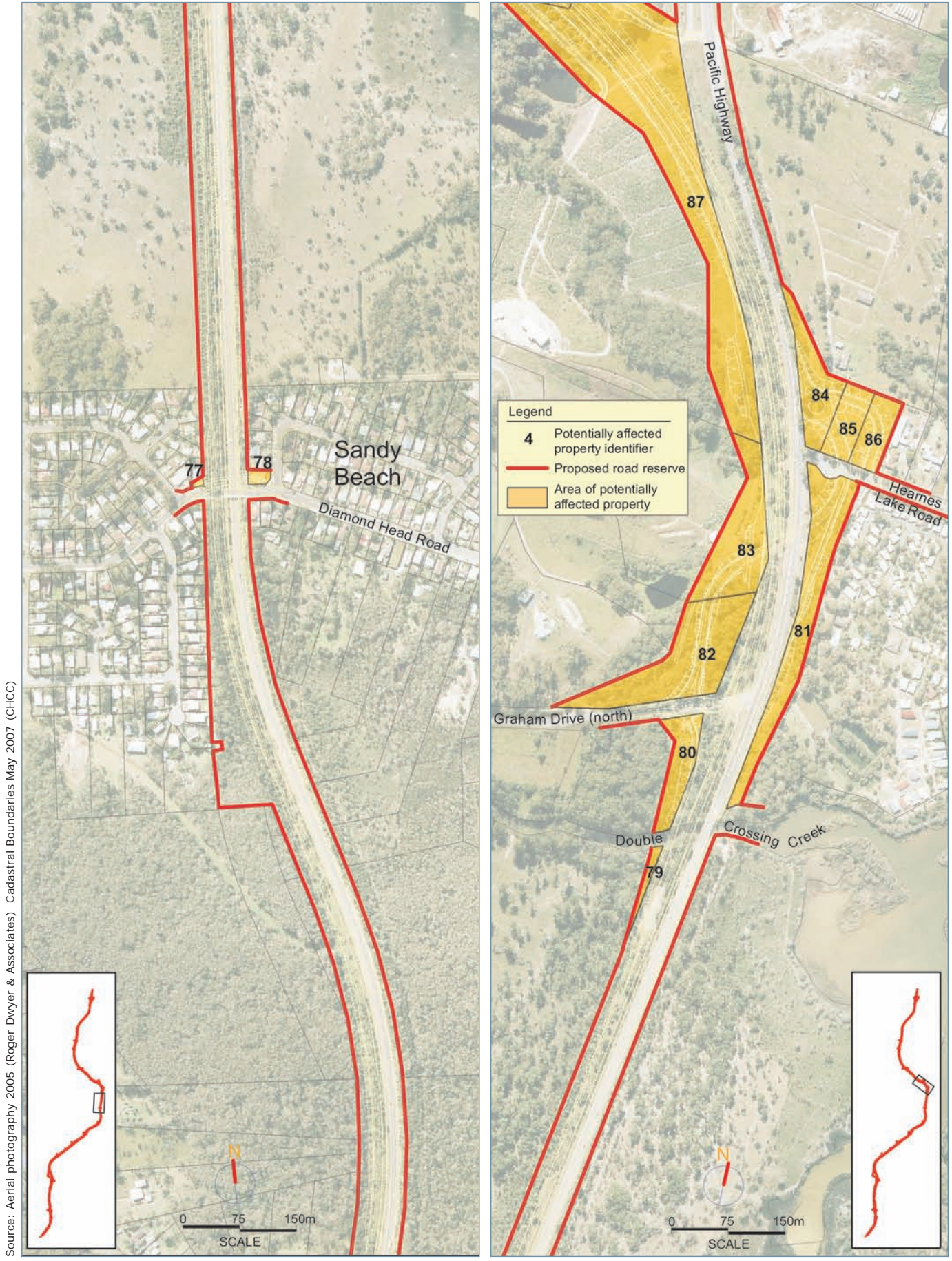


FIGURE 14.2e POTENTIALLY AFFECTED PROPERTIES

Source: Aerial photography 2005 (Roger Dwyer & Associates) Cadastral Boundaries May 2007 (CHCC)

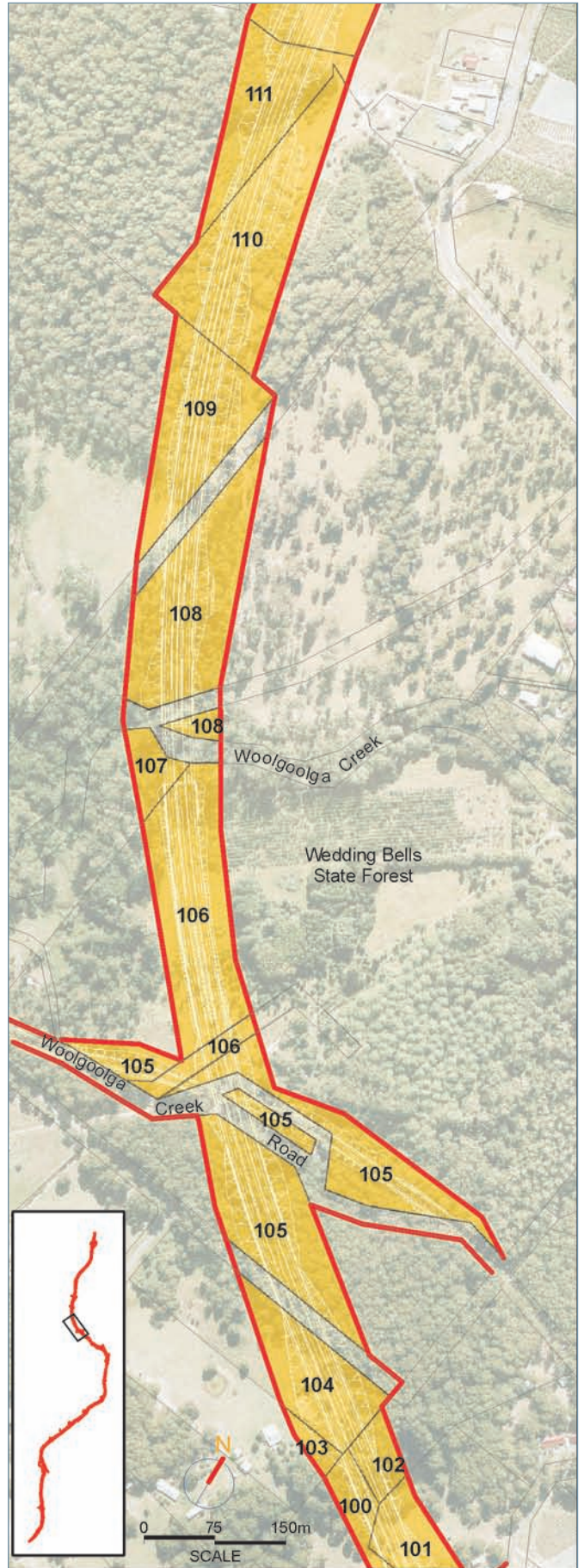
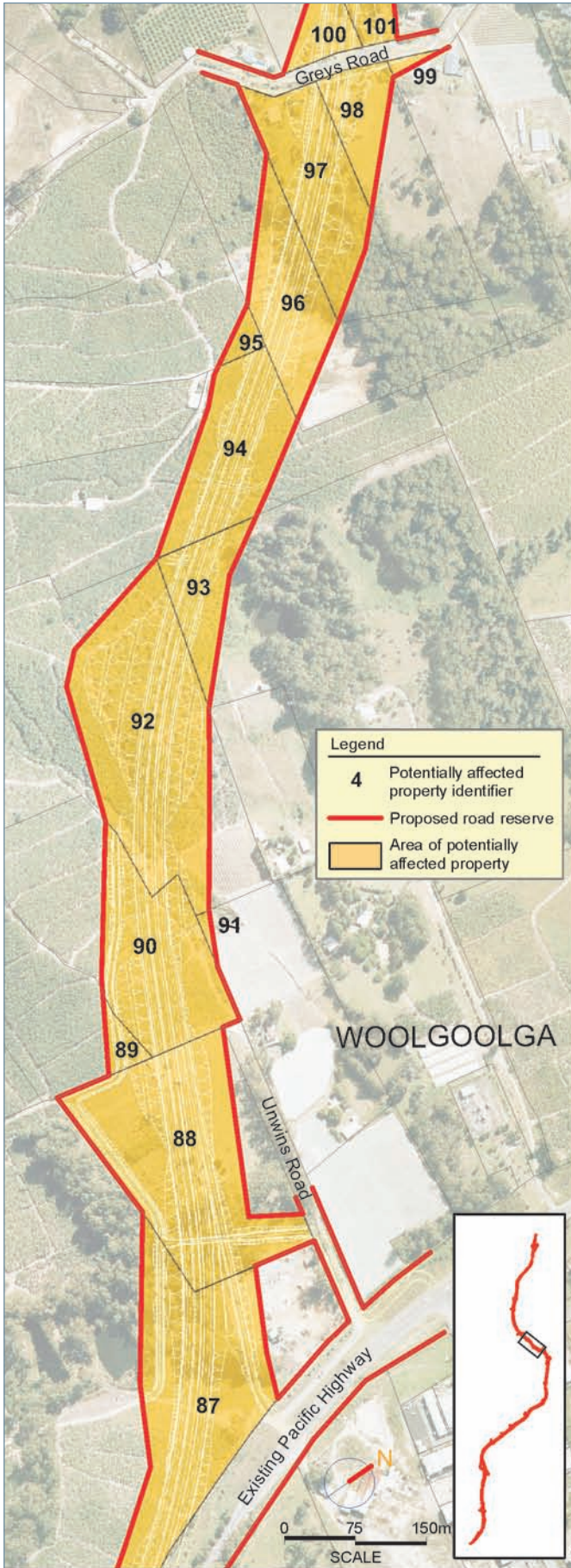
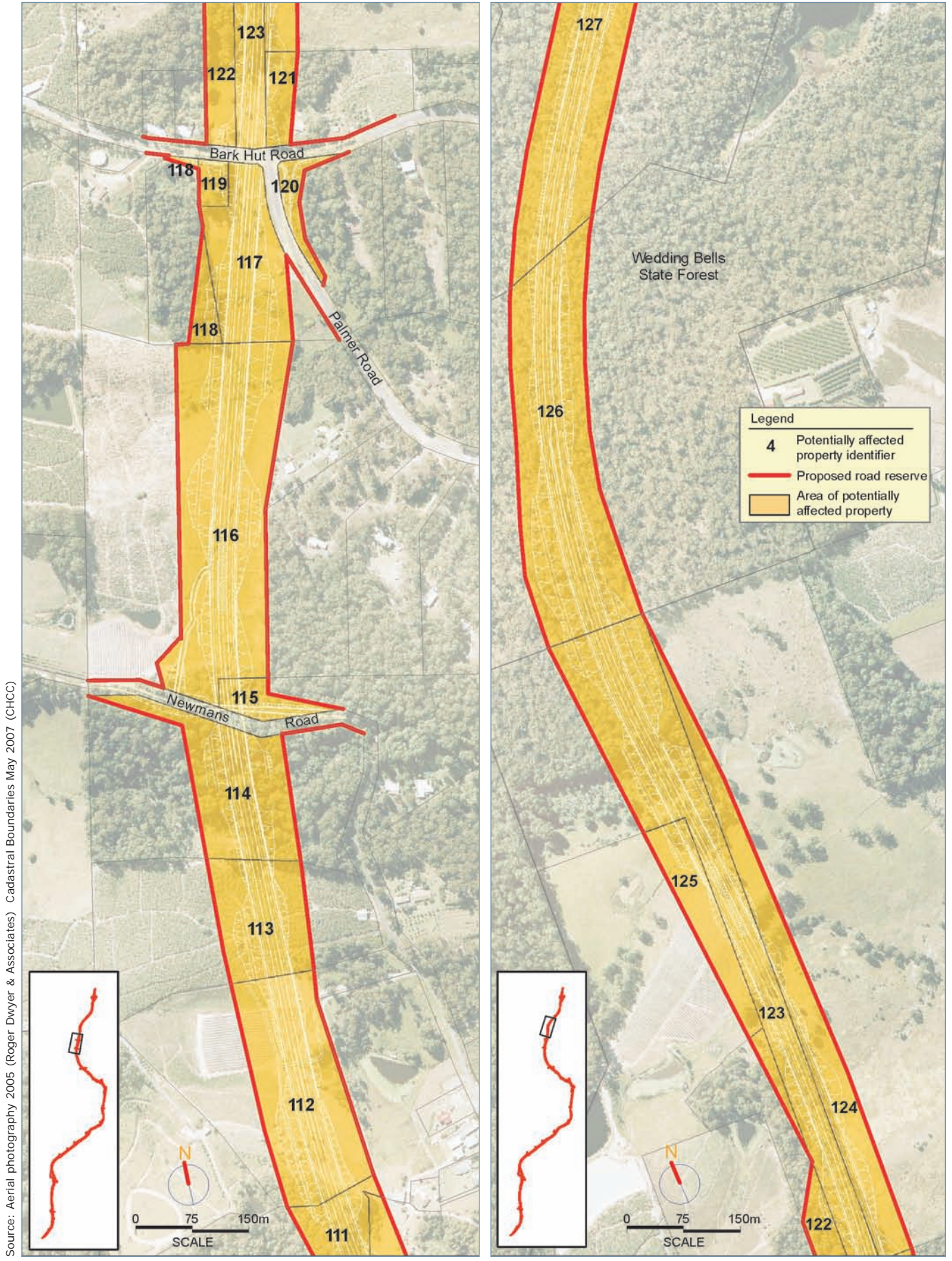


FIGURE 14.2f POTENTIALLY AFFECTED PROPERTIES



Source: Aerial photography 2005 (Roger Dwyer & Associates) Cadastral Boundaries May 2007 (CHCC)

FIGURE 14.2g POTENTIALLY AFFECTED PROPERTIES

Source: Aerial photography 2005 (Roger Dwyer & Associates) Cadastral Boundaries May 2007 (CHCC)

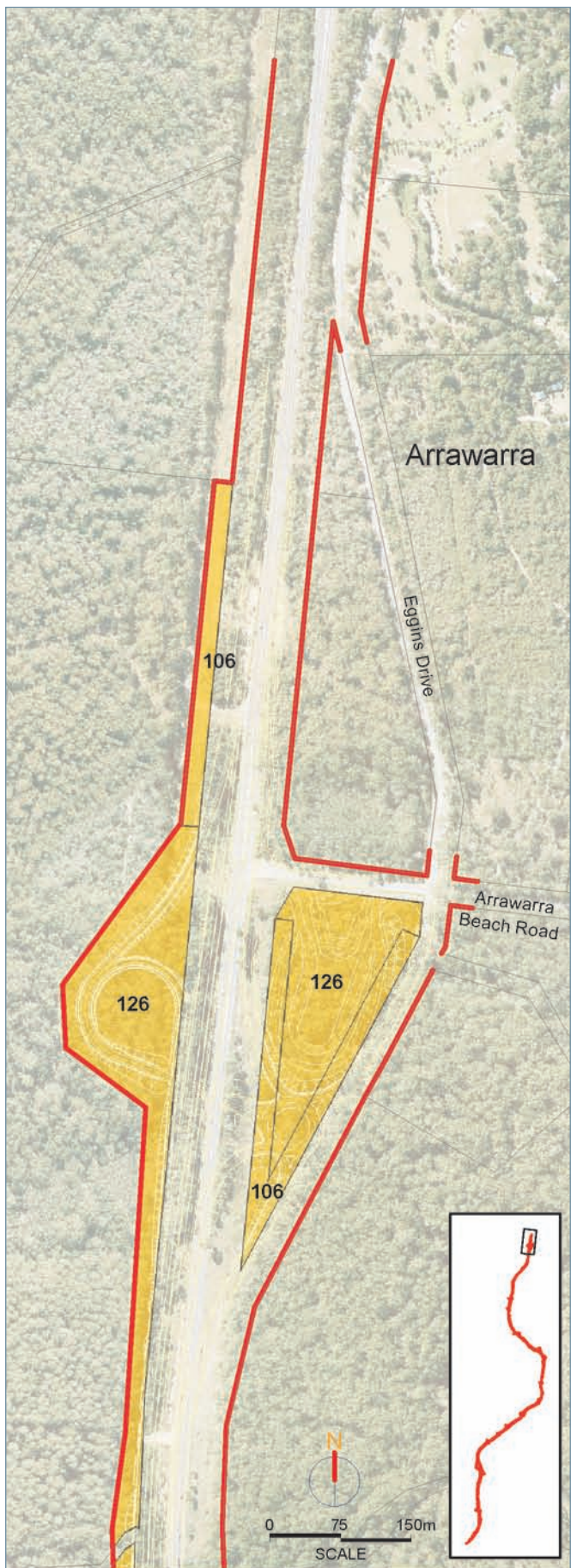
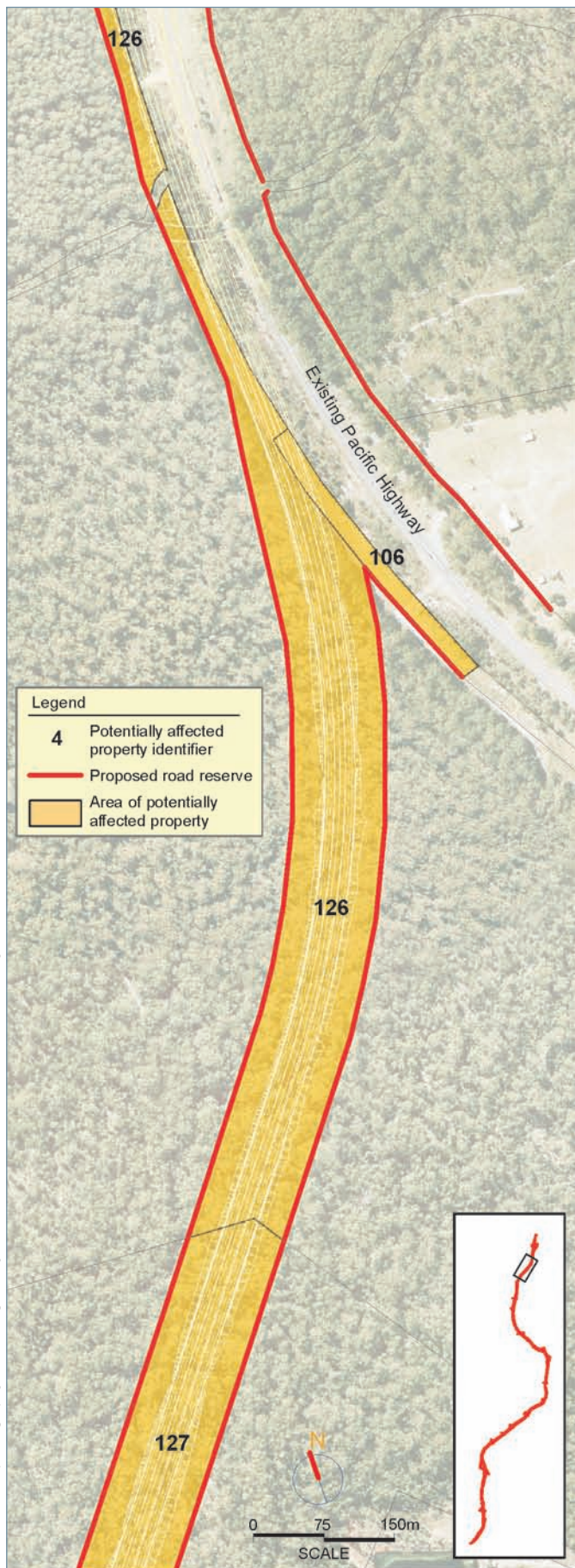


FIGURE 14.2h POTENTIALLY AFFECTED PROPERTIES