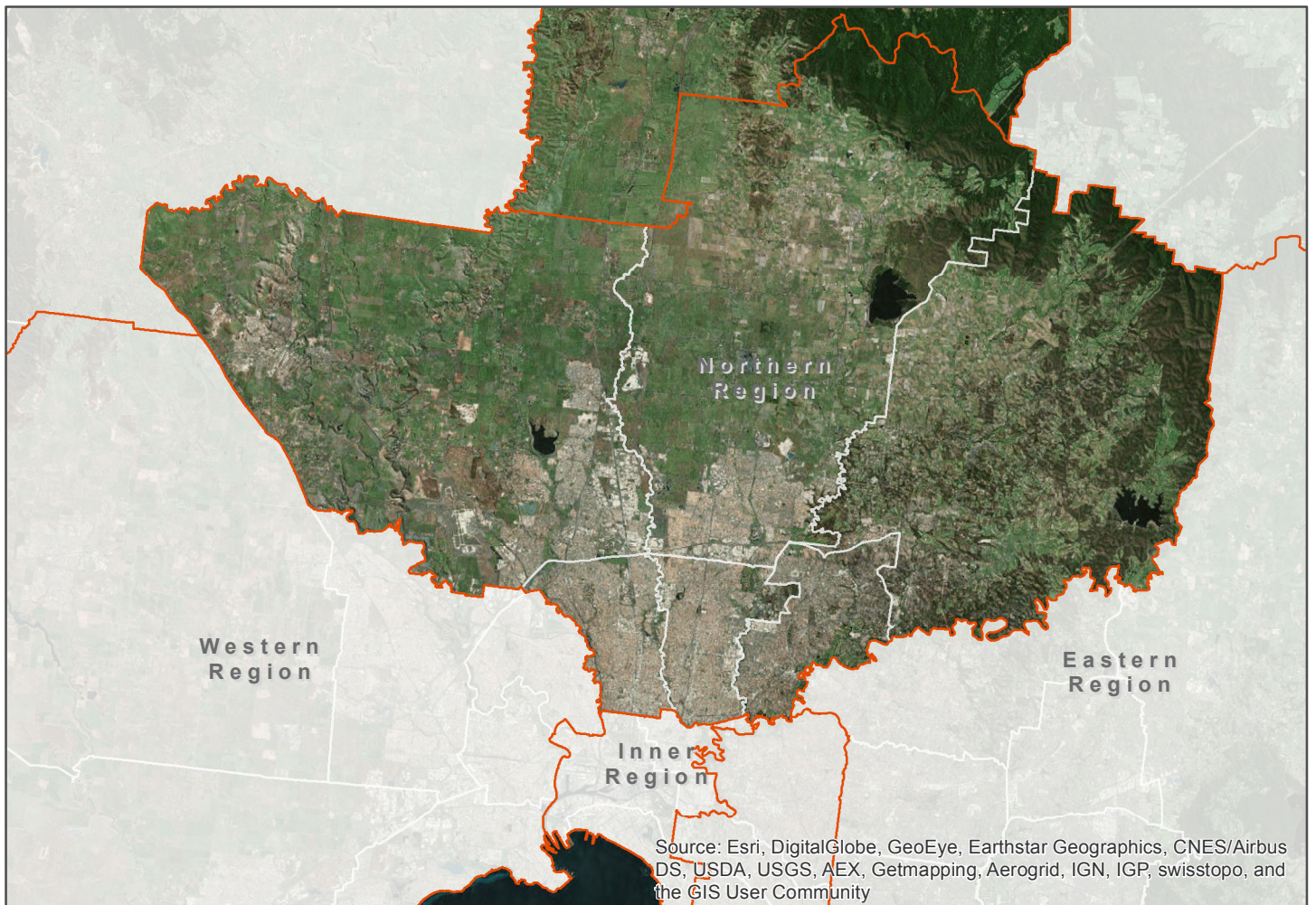


Melbourne Urban Vegetation Cover 2018 Northern Region



Environment,
Land, Water
and Planning



Date: 19/6/2019

Project: Metropolitan monitoring and analysis of vegetation cover, heat and land use

Client: Department of Environment, Land, Water and Planning, Victorian Government

Report: Melbourne Urban Vegetation Cover 2018, Northern Region

Project Team:

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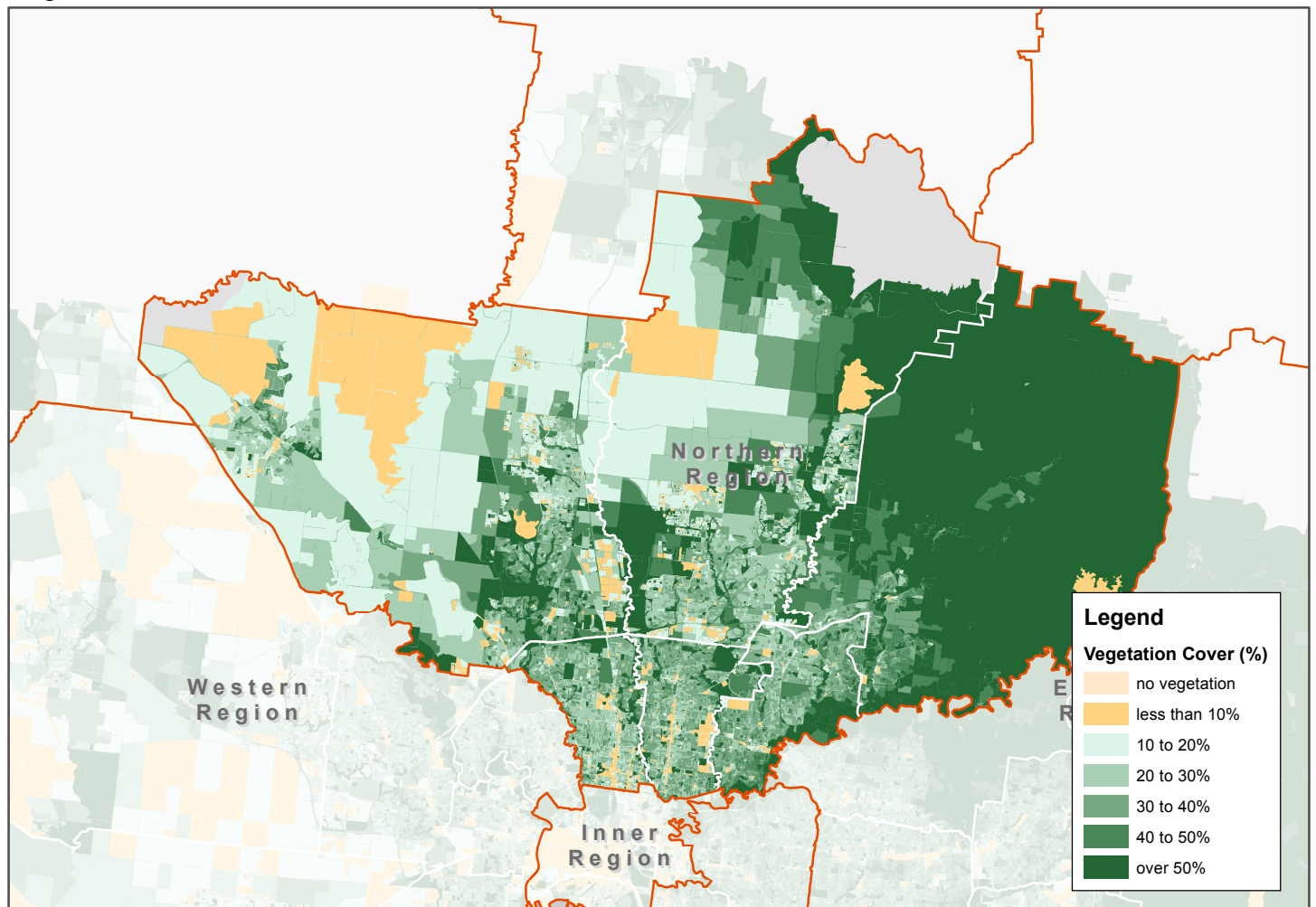
Reference: Hurley, J., Saunders, A., Amati, M., Boruff, B., Both, A., Sun, C., Caccetta, P., and Duncan, J. (2019) *Melbourne Vegetation Cover 2018, Northern Region*, Department of Environment, Land, Water and Planning, Melbourne, Australia.



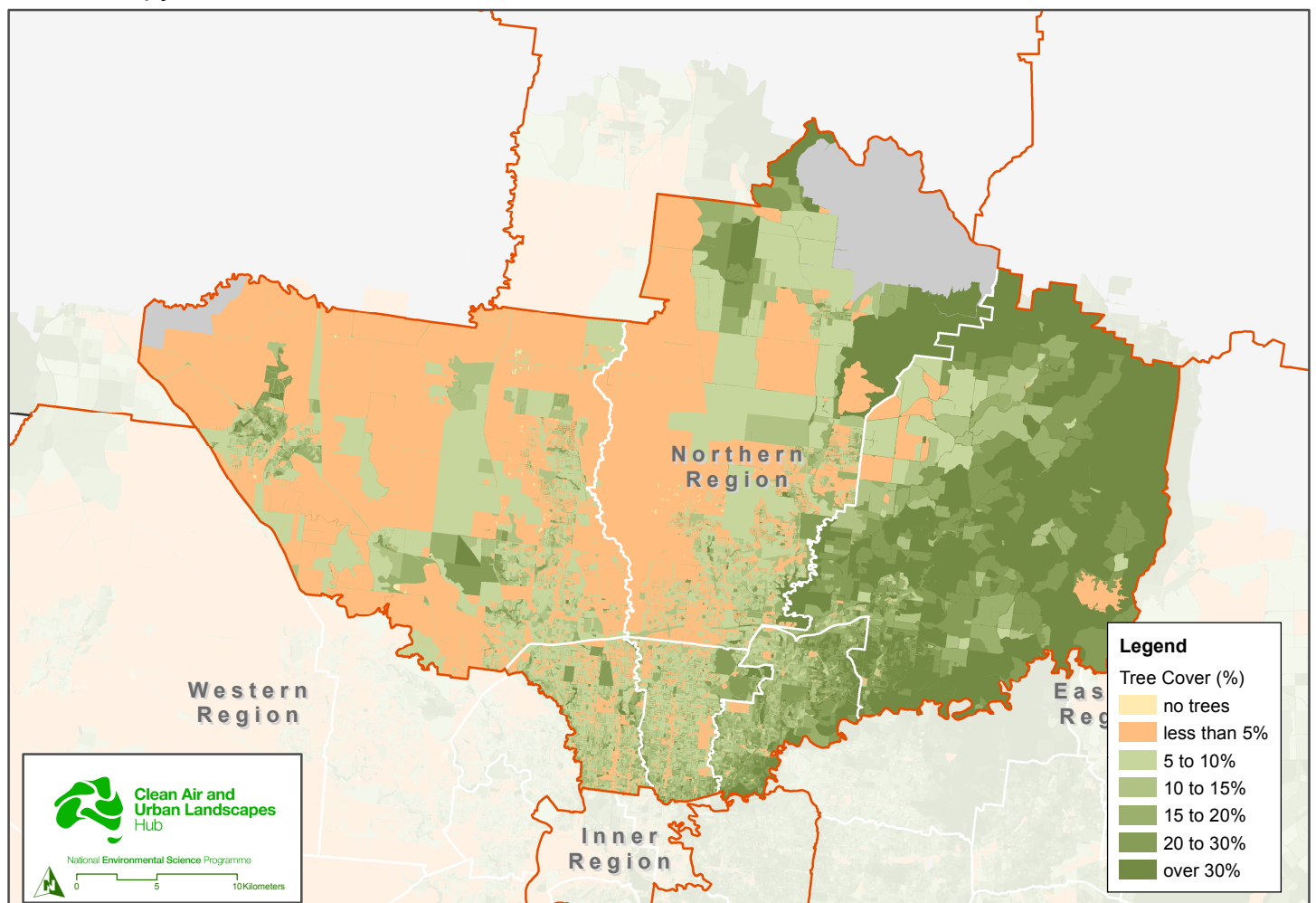
Northern Region

Vegetation Cover and Tree Canopy

Vegetation Cover - Modified Mesh Block



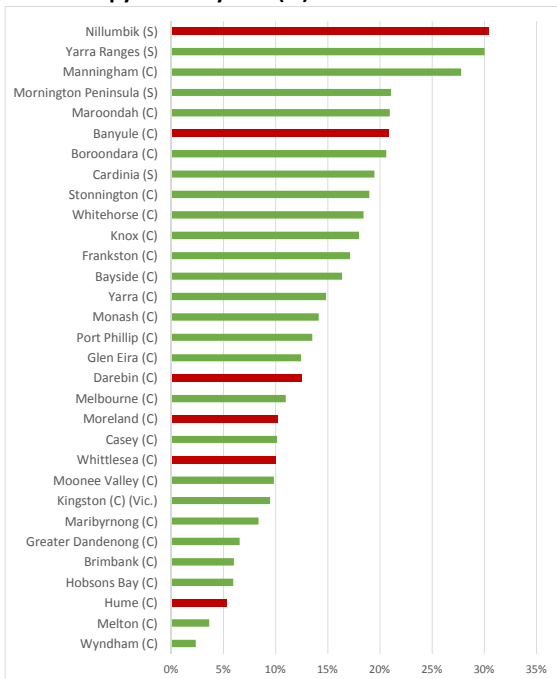
Tree Canopy - Modified Mesh Block



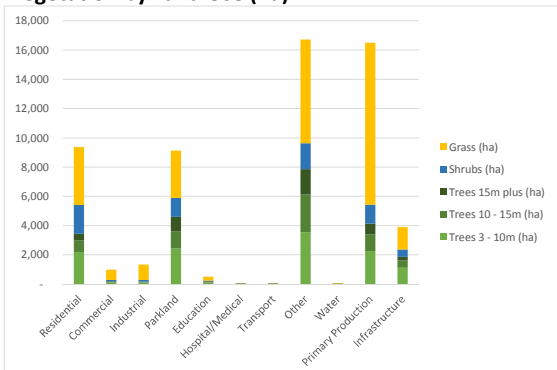
Vegetation Cover and Tree Canopy (2018)

Northern Region - Urban and Non-urban Areas

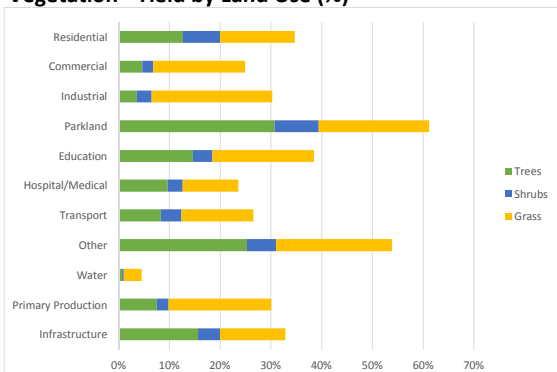
Tree Canopy Cover by LGA (%)



Vegetation by Land Use (ha)



Vegetation - Yield by Land Use (%)



Notes:

1. Analysis based on the 2018 data capture (limited to features where data coverage is greater than 90%), combining both urban and non-urban areas.
2. Mesh Blocks classified as "other" are representative of land uses which could not be easily placed in one of the other nine categories due to the nature of the land use, or due to evidence of high mixed use.

Melbourne Metropolitan Region

Vegetation and Tree Canopy (2018)

Highlights

High percentage of tree canopy on "other" land (35.0% compared with 15.6% for the whole metropolitan region).

High percentage of total vegetation on "other" land (28.6% compared with 14.6% for the whole metropolitan region).

Low percentage of tree canopy on primary production land (18.4% compared with 31.2% for the whole metropolitan region).

Low tree canopy yield on primary production land (7.5% compared with 12.4% for the whole metropolitan region).

Low total vegetation yield on primary production land (30.1% compared with 47.6% for the whole metropolitan region).

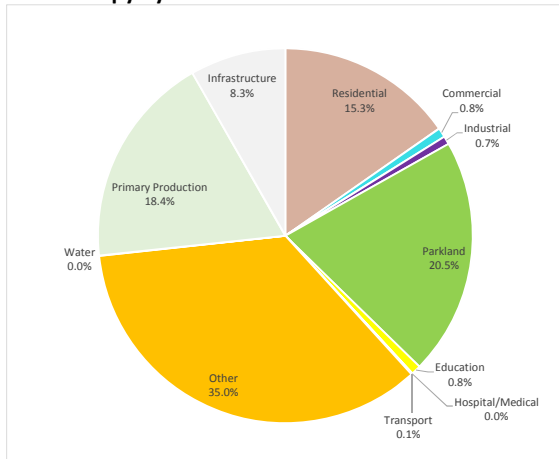
Low percentage of total vegetation on primary production land (28.2% compared with 41.1% for the whole metropolitan region).

Moderately low percentage of tree canopy on residential land (15.3% compared with 20.6% for the whole metropolitan region).

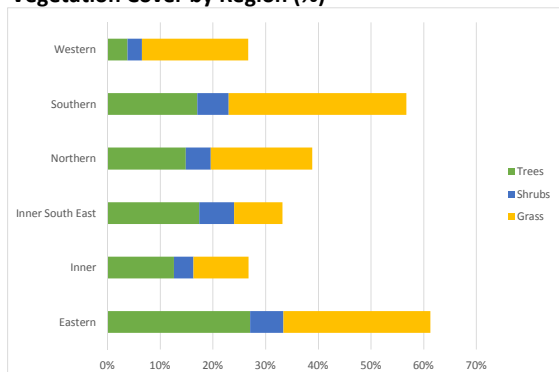
Moderately low tree canopy yield on residential land (12.7% compared with 16.2% for the whole metropolitan region).

Moderately low tree canopy yield on industrial land (3.6% compared with 4.5% for the whole metropolitan region).

Tree Canopy by Land Use

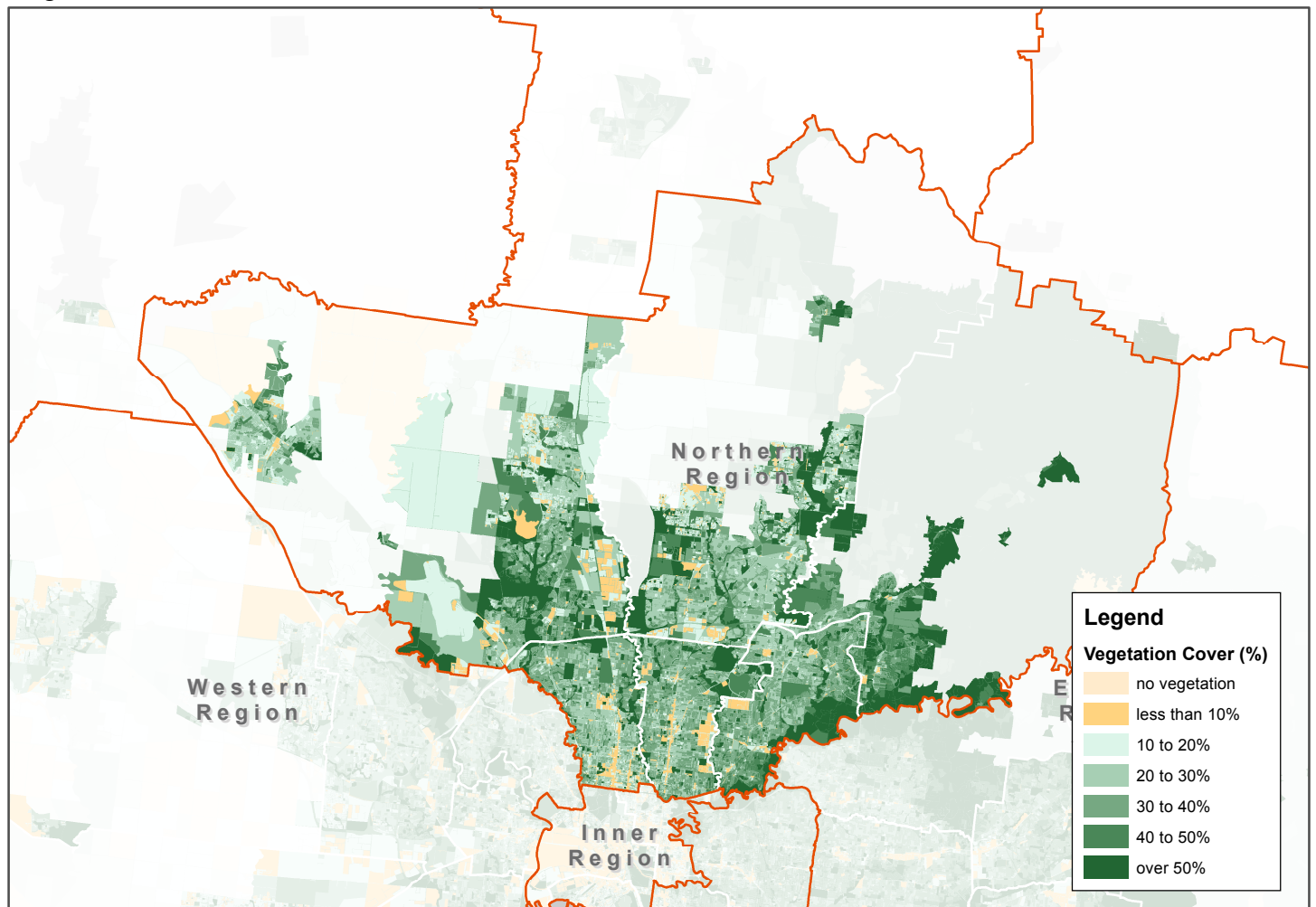


Vegetation Cover by Region (%)

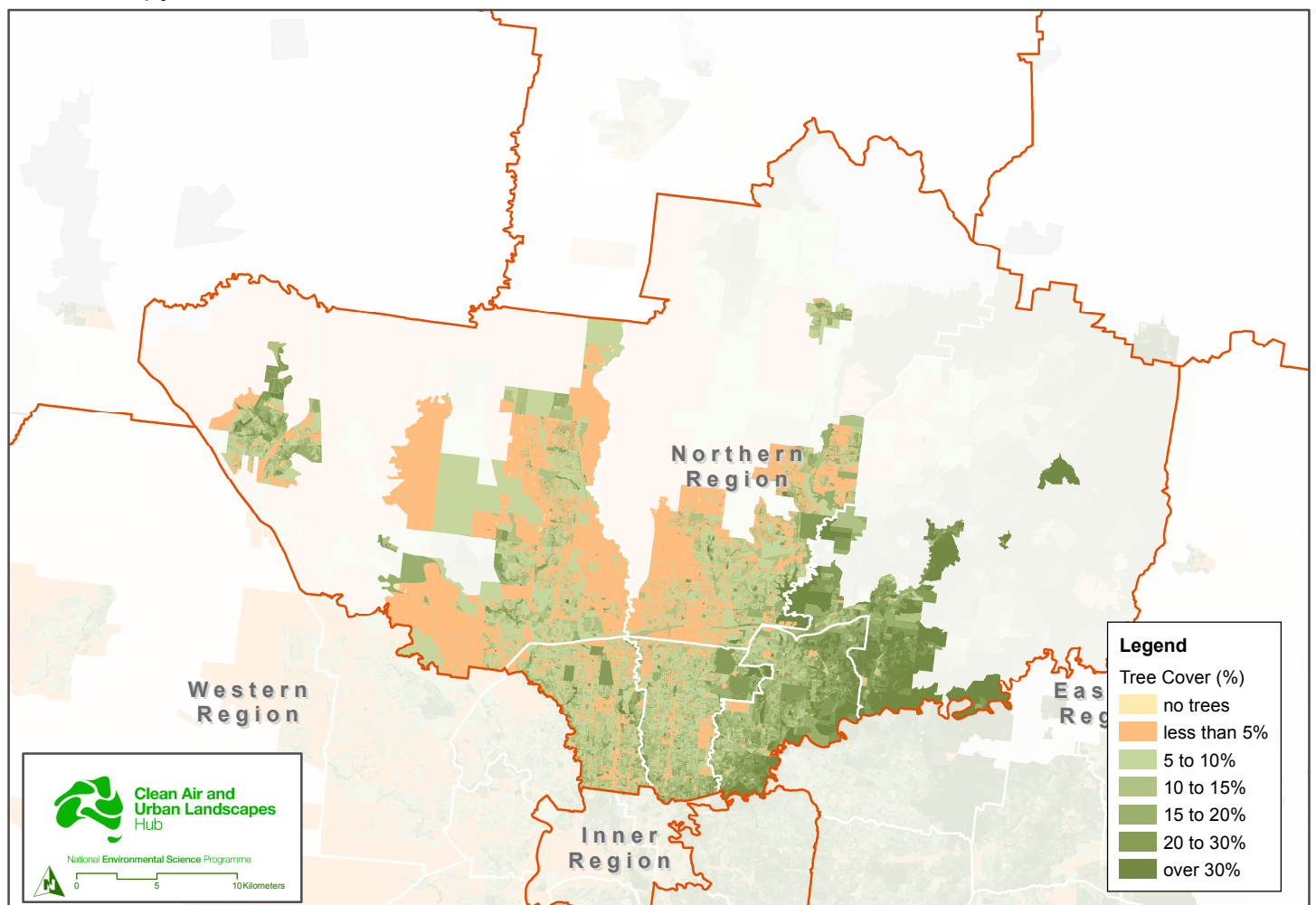


Northern Region

Vegetation Cover - Modified Mesh Block



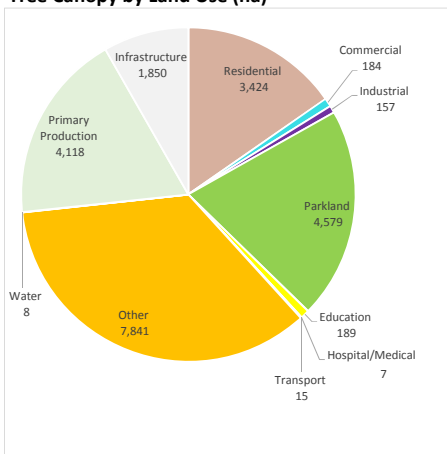
Tree Canopy - Modified Mesh Block



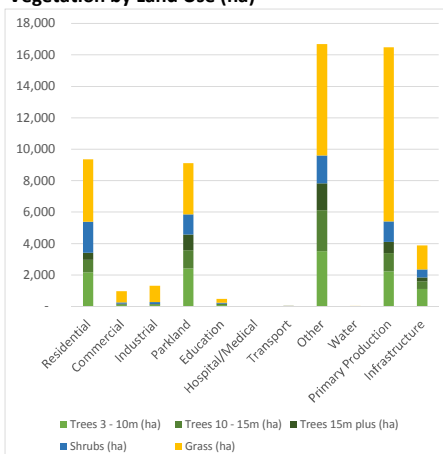
Vegetation Cover and Tree Canopy (2018) Northern Region

Data Summary - Whole of Northern Region

Tree Canopy by Land Use (ha)



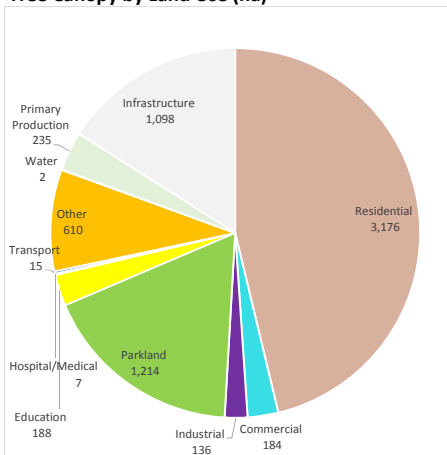
Vegetation by Land Use (ha)



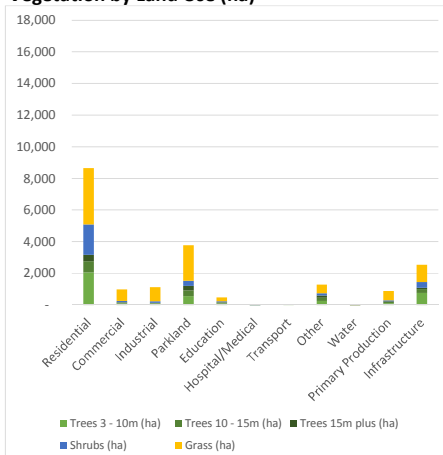
Key Statistics	Melbourne Overall	Northern Region
Tree Canopy Cover (%)	16.2%	14.9%
Total vegetation Cover (%)	47.2%	38.9%
Shrub Cover (%)	5.1%	4.7%
Grass Cover (%)	25.9%	19.3%
Percentage of tree canopy on residential land	20.6%	15.3%
Percentage of tree canopy on parkland	20.1%	20.5%
Percentage of tree canopy on infrastructure	10.0%	8.3%
Percentage of tree canopy on "other" land	15.6%	35.0%
Percentage of tree canopy on primary production land	31.2%	18.4%

Data Summary - Urban Centres and Localities in Northern Region

Tree Canopy by Land Use (ha)



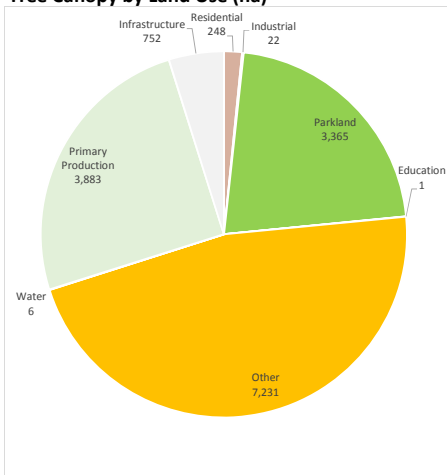
Vegetation by Land Use (ha)



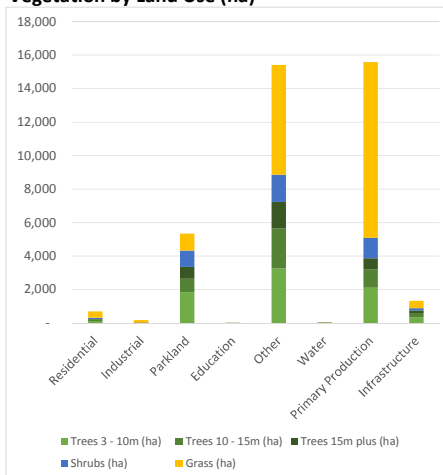
Key Statistics	Melbourne Urban Areas	Northern Region
Tree Canopy Cover (%)	15.3%	12.1%
Total vegetation Cover (%)	42.0%	34.9%
Shrub Cover (%)	6.1%	5.4%
Grass Cover (%)	20.7%	17.4%
Percentage of tree canopy on residential land	46.7%	46.3%
Percentage of tree canopy on parkland	18.5%	17.7%
Percentage of tree canopy on infrastructure	15.7%	16.0%
Percentage of tree canopy on "other" land	6.6%	8.9%
Percentage of tree canopy on primary production land	7.2%	3.4%

Data Summary - Non-urban areas in Northern Region

Tree Canopy by Land Use (ha)



Vegetation by Land Use (ha)



Key Statistics	Melbourne Non-urban Areas	Northern Region
Tree Canopy Cover (%)	17.0%	16.6%
Total vegetation Cover (%)	51.3%	41.3%
Shrub Cover (%)	4.4%	4.3%
Grass Cover (%)	29.9%	20.4%
Percentage of tree canopy on residential land	2.3%	1.6%
Percentage of tree canopy on parkland	21.2%	21.7%
Percentage of tree canopy on infrastructure	6.1%	4.8%
Percentage of tree canopy on "other" land	22.0%	46.6%
Percentage of tree canopy on primary production land	48.1%	25.0%

Notes:

1. Analysis based on the 2018 data capture (limited to features where data coverage is greater than 90%), combining both urban and non-urban areas.
2. Whole region analysis uses all available data; urban area analysis is restricted to areas defined by ABS Urban Centres and Localities 2016; non-urban area analysis is restricted to areas outside ABS Urban Centres and Localities 2016.
3. Mesh Blocks classified as "other" are representative of land uses which could not be easily placed in one of the other nine categories due to the nature of the land use, or due to evidence of high mixed use.

Northern Region - Data Tables

Land Use and Vegetation - Urban and Non-urban areas

Vegetation Area (ha)

Land Use	Grass (ha)	Shrubs (ha)	Trees 3 to 10m (ha)	Trees 10 to 15m (ha)	Trees 15m plus (ha)	Total Trees (ha)	Total Vegetation (ha)	Total Land Area within Study (ha)
Residential	3,961	1,978	2,175	797	452	3,424	9,364	26,985
Commercial	715	86	104	50	30	184	984	3,943
Industrial	1,040	128	110	35	13	157	1,325	4,375
Parkland	3,244	1,296	2,424	1,162	993	4,579	9,119	14,906
Education	257	49	102	55	32	189	495	1,287
Hospital/Medical	8	2	4	2	1	7	18	75
Transport	25	7	10	4	1	15	47	178
Other	7,081	1,777	3,527	2,598	1,715	7,841	16,699	30,988
Water	39	3	4	2	2	8	50	1,105
Primary Production	11,079	1,293	2,239	1,154	725	4,118	16,490	54,788
Infrastructure	1,525	510	1,117	485	247	1,850	3,884	11,801
Total	28,974	7,129	11,816	6,346	4,212	22,373	58,476	150,432

Vegetation Cover (%)

Land Use	Grass (%)	Shrubs (%)	Trees 3 to 10m (%)	Trees 10 to 15m (%)	Trees 15m plus (%)	Total Trees (%)	Total Vegetation (%)
Residential	14.7%	7.3%	8.1%	3.0%	1.7%	12.7%	34.7%
Commercial	18.1%	2.2%	2.6%	1.3%	0.8%	4.7%	25.0%
Industrial	23.8%	2.9%	2.5%	0.8%	0.3%	3.6%	30.3%
Parkland	21.8%	8.7%	16.3%	7.8%	6.7%	30.7%	61.2%
Education	20.0%	3.8%	7.9%	4.3%	2.5%	14.7%	38.5%
Hospital/Medical	11.0%	2.9%	5.8%	2.7%	1.2%	9.7%	23.6%
Transport	14.1%	4.1%	5.4%	2.1%	0.8%	8.4%	26.6%
Other	22.9%	5.7%	11.4%	8.4%	5.5%	25.3%	53.9%
Water	3.5%	0.3%	0.3%	0.2%	0.2%	0.7%	4.5%
Primary Production	20.2%	2.4%	4.1%	2.1%	1.3%	7.5%	30.1%
Infrastructure	12.9%	4.3%	9.5%	4.1%	2.1%	15.7%	32.9%
Total	19.3%	4.7%	7.9%	4.2%	2.8%	14.9%	38.9%

* Data tables on this page based on the 2018 data capture (limited to features where data coverage is greater than 90%), combining both urban and non-urban areas.

Northern Region - Data Tables

Urban and Non-urban areas

Tree Canopy Cover by Local Government

Local Government	Region	Trees 3 to 10m (ha)	Trees 10 to 15m (ha)	Trees 15m plus (ha)	Total Trees (ha)	Trees 3 to 10m (%)	Trees 10 to 15m (%)	Trees 15m plus (%)	Total Trees (%)
Nillumbik (S)	Northern	6,173	4,072	2,860	13,105	14.3%	9.4%	6.6%	30.4%
Yarra Ranges (S)	Eastern	10,747	6,072	13,448	30,267	10.7%	6.0%	13.4%	30.0%
Manningham (C)	Eastern	1,493	914	744	3,151	13.2%	8.1%	6.6%	27.8%
Mornington Peninsula (S)	Southern	8,664	3,539	3,073	15,276	12.0%	4.9%	4.2%	21.1%
Maroondah (C)	Eastern	703	331	252	1,287	11.5%	5.4%	4.1%	20.9%
Banyule (C)	Northern	740	324	236	1,300	11.8%	5.2%	3.8%	20.8%
Boroondara (C)	Inner South East	851	262	127	1,241	14.1%	4.4%	2.1%	20.6%
Cardinia (S)	Southern	5,959	3,577	6,420	15,956	7.3%	4.4%	7.8%	19.5%
Stonnington (C)	Inner South East	348	102	37	488	13.6%	4.0%	1.5%	19.0%
Whitehorse (C)	Eastern	777	261	147	1,185	12.1%	4.1%	2.3%	18.4%
Knox (C)	Eastern	1,111	482	460	2,053	9.8%	4.2%	4.0%	18.0%
Frankston (C)	Southern	1,580	462	180	2,222	12.2%	3.6%	1.4%	17.2%
Bayside (C)	Inner South East	467	103	40	610	12.6%	2.8%	1.1%	16.4%
Yarra (C)	Inner	179	67	44	290	9.1%	3.4%	2.3%	14.8%
Monash (C)	Eastern	810	225	118	1,153	9.9%	2.8%	1.4%	14.2%
Port Phillip (C)	Inner	194	64	22	280	9.4%	3.1%	1.1%	13.5%
Glen Eira (C)	Inner South East	403	60	20	483	10.4%	1.5%	0.5%	12.5%
Darebin (C)	Northern	488	122	58	667	9.1%	2.3%	1.1%	12.5%
Melbourne (C)	Inner	219	113	79	411	5.9%	3.0%	2.1%	11.0%
Moreland (C)	Northern	395	89	35	519	7.8%	1.7%	0.7%	10.2%
Casey (C)	Southern	2,757	914	503	4,174	6.7%	2.2%	1.2%	10.2%
Whittlesea (C)	Northern	2,289	1,121	749	4,158	5.5%	2.7%	1.8%	10.0%
Moonee Valley (C)	Western	336	64	26	426	7.8%	1.5%	0.6%	9.9%
Kingston (C) (Vic.)	Southern	643	155	70	868	7.0%	1.7%	0.8%	9.5%
Maribyrnong (C)	Western	210	37	14	261	6.7%	1.2%	0.4%	8.4%
Greater Dandenong (C)	Southern	574	176	102	851	4.4%	1.4%	0.8%	6.6%
Brimbank (C)	Western	563	126	56	745	4.6%	1.0%	0.5%	6.0%
Hobsons Bay (C)	Western	309	57	16	383	4.8%	0.9%	0.3%	6.0%
Hume (C)	Northern	1,731	619	274	2,624	3.5%	1.3%	0.6%	5.3%
Melton (C)	Western	1,254	439	160	1,853	2.5%	0.9%	0.3%	3.7%
Wyndham (C)	Western	839	207	95	1,141	1.7%	0.4%	0.2%	2.4%
Total	-	53,808	25,155	30,465	109,427	8.0%	3.7%	4.5%	16.2%

* Data tables on this page based on the 2018 data capture (limited to features where data coverage is greater than 90%), combining both urban and non-urban areas.

* Partial data coverage only for some outer LGAs including - Cardinia, Melton, Whittlesea, Wyndham and Yarra Ranges.

Northern Region - Data Tables

Land Use and Vegetation - Urban Areas

Vegetation Area (ha)

Land Use	Grass (ha)	Shrubs (ha)	Trees 3 to 10m (ha)	Trees 10 to 15m (ha)	Trees 15m plus (ha)	Total Trees (ha)	Total Vegetation (ha)	Total Land Area within Study (ha)
Residential	3,564	1,914	2,054	710	412	3,176	8,655	25,156
Commercial	715	86	104	50	30	184	984	3,943
Industrial	891	109	93	31	12	136	1,136	3,916
Parkland	2,232	327	573	361	280	1,214	3,773	6,196
Education	257	49	102	55	32	188	494	1,283
Hospital/Medical	8	2	4	2	1	7	18	75
Transport	25	7	10	4	1	15	47	178
Other	541	142	267	206	137	610	1,293	2,840
Water	5	1	1	1	1	2	9	181
Primary Production	589	72	129	68	38	235	896	4,404
Infrastructure	1,086	359	769	232	97	1,098	2,543	8,762
Total	9,913	3,069	4,107	1,719	1,040	6,866	19,849	56,935

Vegetation Cover (%)

Land Use	Grass (%)	Shrubs (%)	Trees 3 to 10m (%)	Trees 10 to 15m (%)	Trees 15m plus (%)	Total Trees (%)	Total Vegetation (%)
Residential	14.2%	7.6%	8.2%	2.8%	1.6%	12.6%	34.4%
Commercial	18.1%	2.2%	2.6%	1.3%	0.8%	4.7%	25.0%
Industrial	22.8%	2.8%	2.4%	0.8%	0.3%	3.5%	29.0%
Parkland	36.0%	5.3%	9.3%	5.8%	4.5%	19.6%	60.9%
Education	20.0%	3.8%	7.9%	4.3%	2.5%	14.7%	38.5%
Hospital/Medical	11.0%	2.9%	5.8%	2.7%	1.2%	9.7%	23.6%
Transport	14.1%	4.1%	5.4%	2.1%	0.8%	8.4%	26.6%
Other	19.0%	5.0%	9.4%	7.2%	4.8%	21.5%	45.5%
Water	3.0%	0.7%	0.4%	0.3%	0.4%	1.1%	4.8%
Primary Production	13.4%	1.6%	2.9%	1.5%	0.9%	5.3%	20.4%
Infrastructure	12.4%	4.1%	8.8%	2.6%	1.1%	12.5%	29.0%
Total	17.4%	5.4%	7.2%	3.0%	1.8%	12.1%	34.9%

* Data tables on this page based on the 2018 data capture (limited to features where data coverage is greater than 90%), limited to urban areas as defined by ABS Urban Centres and Localities 2016.

Northern Region - Data Tables

Urban Areas

Tree Canopy Cover by Local Government

Local Government	Region	Trees 3 to 10m (ha)	Trees 10 to 15m (ha)	Trees 15m plus (ha)	Total Trees (ha)	Trees 3 to 10m (%)	Trees 10 to 15m (%)	Trees 15m plus (%)	Total Trees (%)
Yarra Ranges (S)	Eastern	3,071	1,835	4,431	9,338	12.1%	7.2%	17.4%	36.7%
Nillumbik (S)	Northern	913	681	467	2,061	13.8%	10.3%	7.0%	31.1%
Manningham (C)	Eastern	1,132	603	507	2,241	12.8%	6.8%	5.7%	25.4%
Cardinia (S)	Southern	874	510	1,163	2,548	8.5%	5.0%	11.4%	24.9%
Mornington Peninsula (S)	Southern	4,082	1,043	554	5,679	15.7%	4.0%	2.1%	21.8%
Maroondah (C)	Eastern	703	331	252	1,287	11.5%	5.4%	4.1%	20.9%
Banyule (C)	Northern	740	324	236	1,300	11.8%	5.2%	3.8%	20.8%
Boroondara (C)	Inner South East	851	262	127	1,241	14.1%	4.4%	2.1%	20.6%
Stonnington (C)	Inner South East	348	102	37	488	13.6%	4.0%	1.5%	19.0%
Whitehorse (C)	Eastern	777	261	147	1,185	12.1%	4.1%	2.3%	18.4%
Frankston (C)	Southern	1,580	462	180	2,222	12.2%	3.6%	1.4%	17.2%
Bayside (C)	Inner South East	467	103	40	610	12.6%	2.8%	1.1%	16.4%
Knox (C)	Eastern	970	380	312	1,662	9.5%	3.7%	3.1%	16.3%
Yarra (C)	Inner	179	67	44	290	9.1%	3.4%	2.3%	14.8%
Monash (C)	Eastern	810	225	118	1,153	9.9%	2.8%	1.4%	14.2%
Port Phillip (C)	Inner	194	64	22	280	9.4%	3.1%	1.1%	13.5%
Glen Eira (C)	Inner South East	403	60	20	483	10.4%	1.5%	0.5%	12.5%
Darebin (C)	Northern	488	122	58	667	9.1%	2.3%	1.1%	12.5%
Melbourne (C)	Inner	219	113	79	411	5.9%	3.0%	2.1%	11.0%
Moreland (C)	Northern	395	89	35	519	7.8%	1.7%	0.7%	10.2%
Casey (C)	Southern	1,726	491	232	2,449	7.0%	2.0%	0.9%	9.9%
Moonee Valley (C)	Western	336	64	26	426	7.8%	1.5%	0.6%	9.9%
Kingston (C) (Vic.)	Southern	643	155	70	868	7.0%	1.7%	0.8%	9.5%
Maribyrnong (C)	Western	210	37	14	261	6.7%	1.2%	0.4%	8.4%
Whittlesea (C)	Northern	582	190	122	894	5.2%	1.7%	1.1%	7.9%
Greater Dandenong (C)	Southern	574	176	102	851	4.4%	1.4%	0.8%	6.6%
Hume (C)	Northern	989	313	123	1,425	4.4%	1.4%	0.6%	6.4%
Brimbank (C)	Western	563	126	56	745	4.6%	1.0%	0.5%	6.0%
Hobsons Bay (C)	Western	309	57	16	383	4.8%	0.9%	0.3%	6.0%
Wyndham (C)	Western	500	82	28	609	3.5%	0.6%	0.2%	4.2%
Melton (C)	Western	402	82	31	515	3.2%	0.7%	0.2%	4.1%
Total	-	26,030	9,411	9,648	45,089	8.8%	3.2%	3.3%	15.3%

* Data tables on this page based on the 2018 data capture (limited to features where data coverage is greater than 90%), limited to urban areas as defined by ABS Urban Centres and Localities 2016.

* Partial data coverage only for some outer LGAs including - Cardinia, Melton, Whittlesea, Wyndham and Yarra Ranges.

Northern Region - Data Tables

Land Use and Vegetation - Non-urban areas

Vegetation Area (ha)

Land Use	Grass (ha)	Shrubs (ha)	Trees 3 to 10m (ha)	Trees 10 to 15m (ha)	Trees 15m plus (ha)	Total Trees (ha)	Total Vegetation (ha)	Total Land Area within Study (ha)
Residential	397	64	121	87	41	248	709	1,829
Industrial	148	19	16	4	1	22	189	459
Parkland	1,012	969	1,851	801	713	3,365	5,346	8,710
Education	0	0	0	0	0	1	1	4
Other	6,540	1,635	3,260	2,392	1,578	7,231	15,406	28,148
Water	34	2	3	2	1	6	41	925
Primary Production	10,490	1,221	2,110	1,086	687	3,883	15,593	50,383
Infrastructure	439	150	348	253	150	752	1,341	3,039
Total	19,061	4,060	7,709	4,626	3,171	15,507	38,627	93,497

Vegetation Cover (%)

Land Use	Grass (%)	Shrubs (%)	Trees 3 to 10m (%)	Trees 10 to 15m (%)	Trees 15m plus (%)	Total Trees (%)	Total Vegetation (%)
Residential	21.7%	3.5%	6.6%	4.7%	2.2%	13.6%	38.8%
Industrial	32.3%	4.1%	3.5%	1.0%	0.2%	4.7%	41.2%
Parkland	11.6%	11.1%	21.2%	9.2%	8.2%	38.6%	61.4%
Education	8.1%	4.1%	8.6%	5.7%	2.3%	16.6%	28.7%
Other	23.2%	5.8%	11.6%	8.5%	5.6%	25.7%	54.7%
Water	3.6%	0.2%	0.3%	0.2%	0.1%	0.6%	4.5%
Primary Production	20.8%	2.4%	4.2%	2.2%	1.4%	7.7%	30.9%
Infrastructure	14.4%	4.9%	11.5%	8.3%	4.9%	24.7%	44.1%
Total	20.4%	4.3%	8.2%	4.9%	3.4%	16.6%	41.3%

* Data tables on this page based on the 2018 data capture (limited to features where data coverage is greater than 90%), limited to non-urban areas being those areas outside ABS Urban Centres and Localities 2016.

Northern Region - Data Tables

Non-urban Areas

Tree Canopy Cover by Local Government

Local Government	Region	Trees 3 to 10m (ha)	Trees 10 to 15m (ha)	Trees 15m plus (ha)	Total Trees (ha)	Trees 3 to 10m (%)	Trees 10 to 15m (%)	Trees 15m plus (%)	Total Trees (%)
Manningham (C)	Eastern	361	311	237	910	14.4%	12.4%	9.5%	36.3%
Knox (C)	Eastern	141	101	148	391	11.8%	8.5%	12.4%	32.7%
Nillumbik (S)	Northern	5,260	3,390	2,394	11,044	14.4%	9.3%	6.6%	30.3%
Yarra Ranges (S)	Eastern	7,676	4,236	9,017	20,930	10.2%	5.6%	12.0%	27.8%
Mornington Peninsula (S)	Southern	4,582	2,496	2,519	9,598	9.9%	5.4%	5.4%	20.7%
Cardinia (S)	Southern	5,085	3,067	5,257	13,409	7.1%	4.3%	7.3%	18.7%
Whittlesea (C)	Northern	1,707	931	627	3,264	5.7%	3.1%	2.1%	10.8%
Casey (C)	Southern	1,031	423	271	1,725	6.4%	2.6%	1.7%	10.6%
Hume (C)	Northern	742	305	151	1,199	2.8%	1.1%	0.6%	4.5%
Melton (C)	Western	852	358	128	1,338	2.2%	0.9%	0.3%	3.5%
Wyndham (C)	Western	339	125	67	531	1.0%	0.4%	0.2%	1.6%
Total		27,778	15,744	20,816	64,338	7.3%	4.2%	5.5%	17.0%

* Data tables on this page based on the 2018 data capture (limited to features where data coverage is greater than 90%), limited to non-urban areas being those areas outside ABS Urban Centres and Localities 2016.

* Partial data coverage only for some outer LGAs including - Cadinia, Melton, Whittlesea, Wyndham and Yarra Ranges.