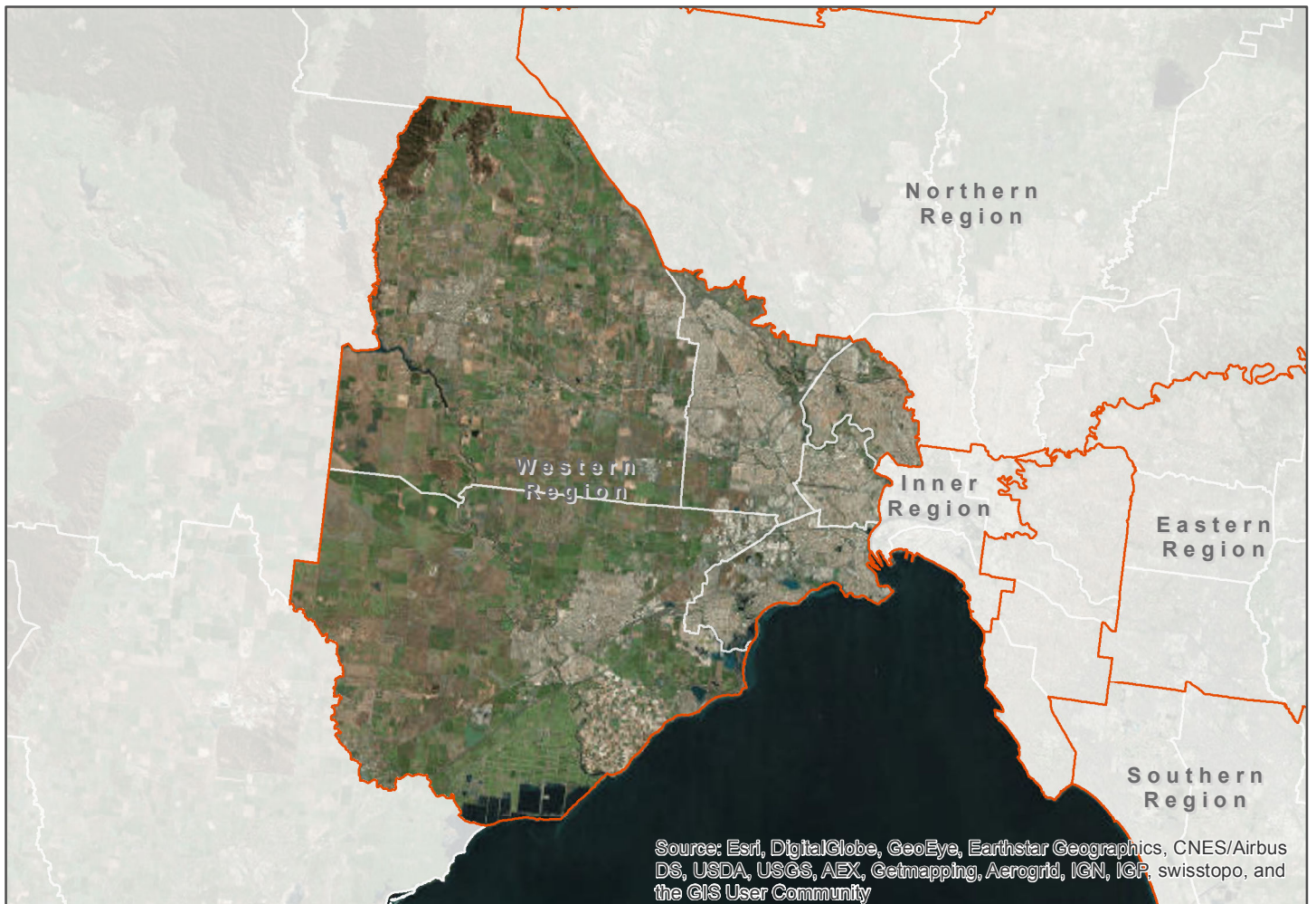


Melbourne Urban Vegetation Cover: 2018 Western Region



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, Western 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, Western Region*, Department of Environment, Land, Water and Planning, Melbourne, Australia.



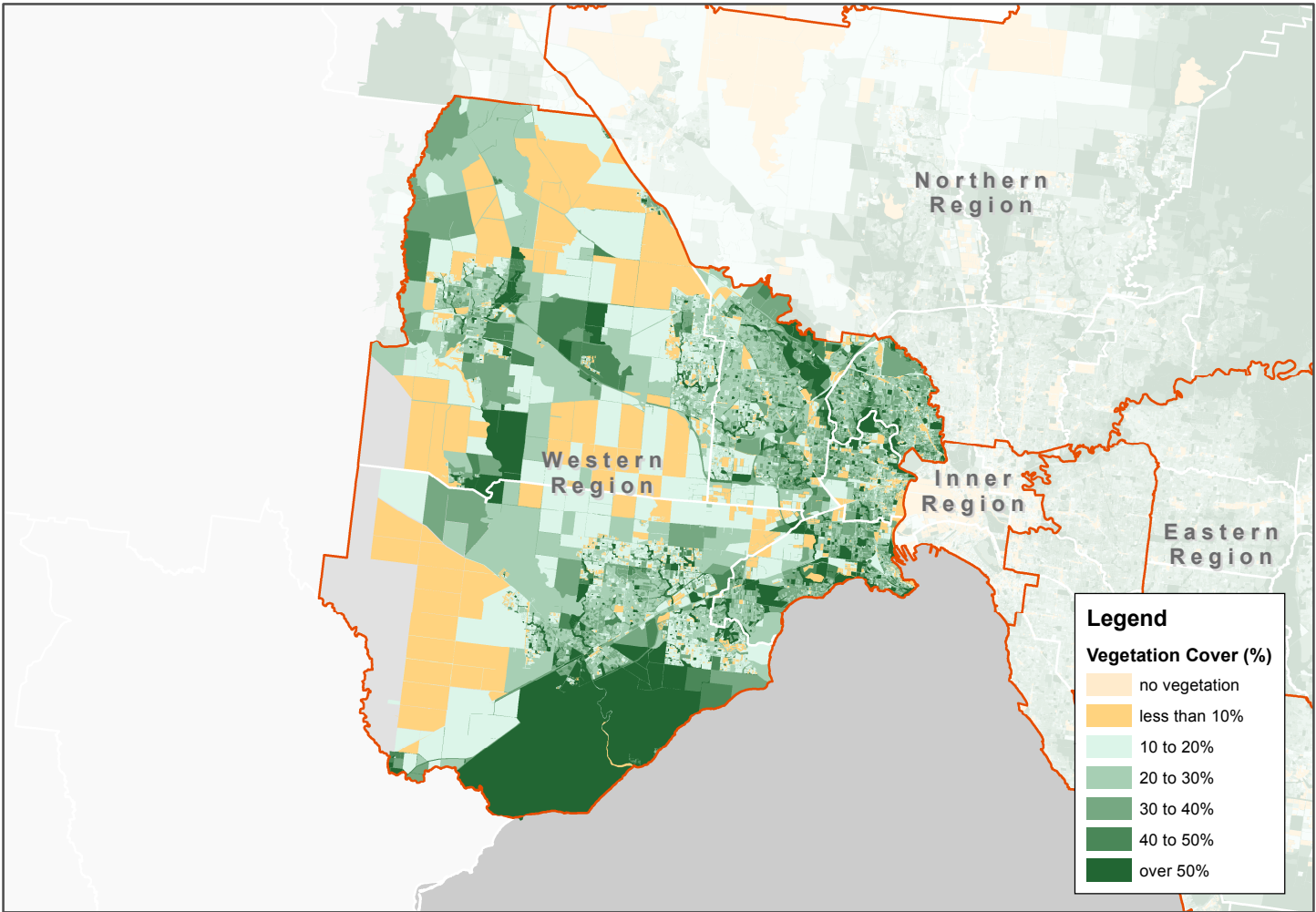
Environment,
Land, Water
and Planning



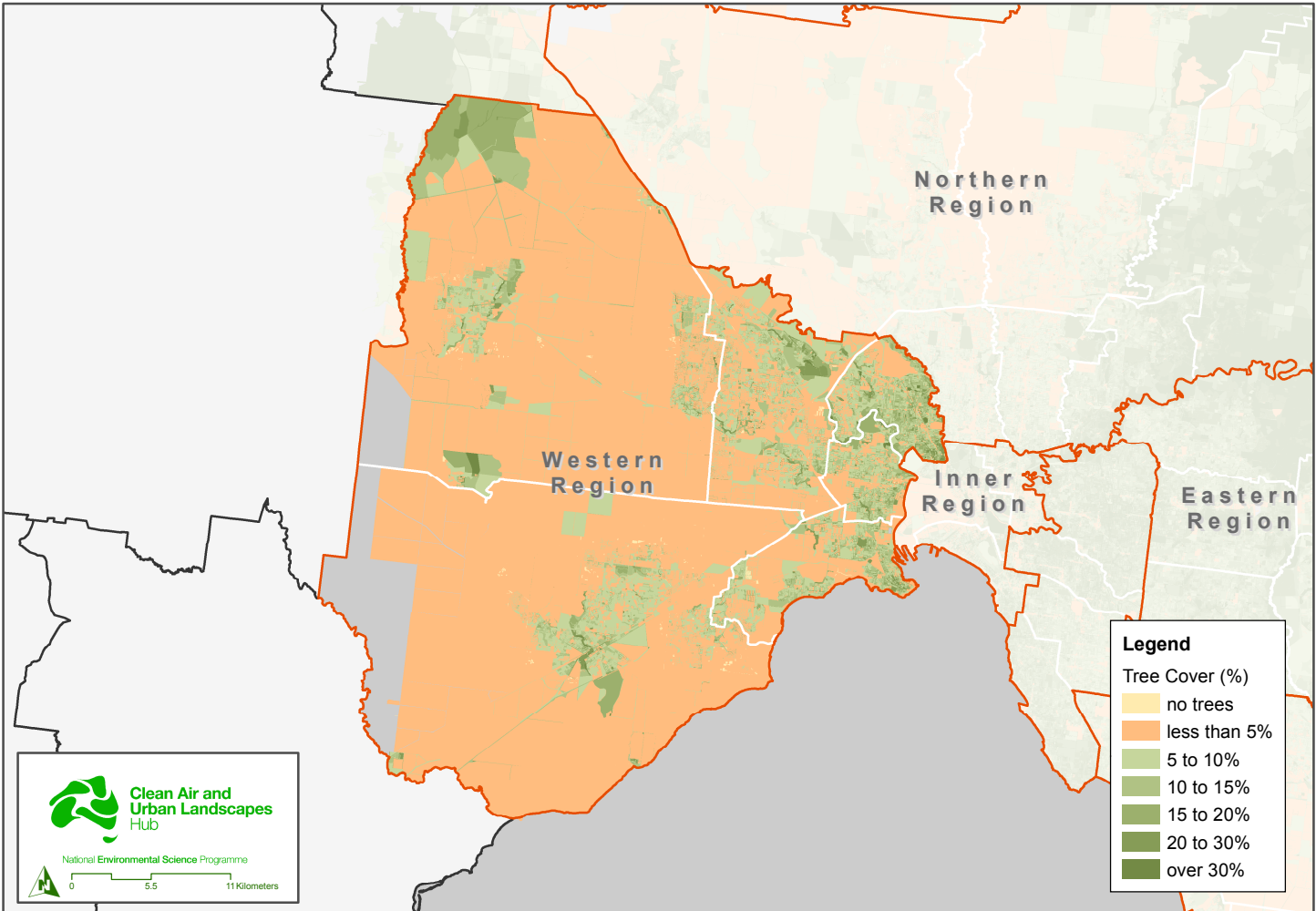
Western Region

Vegetation Cover and Tree Canopy

Vegetation Cover - Modified Mesh Block



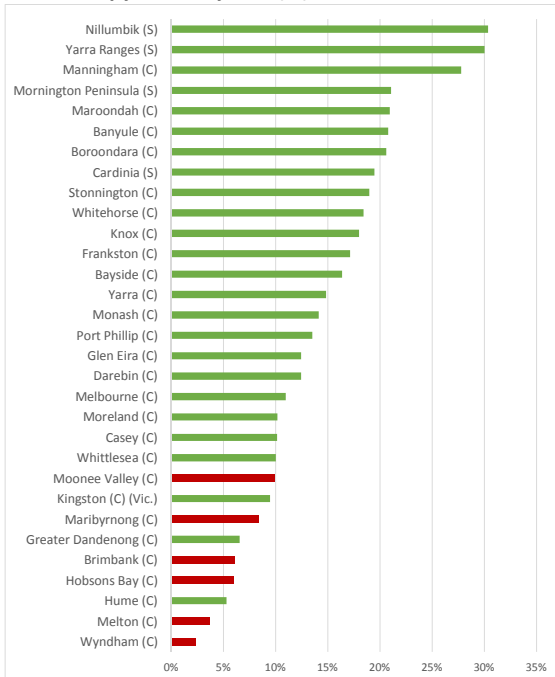
Tree Canopy - Modified Mesh Block



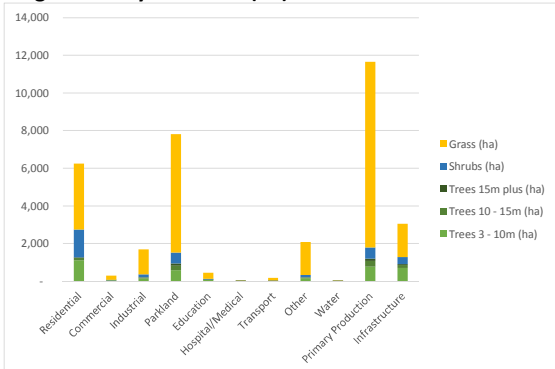
Vegetation Cover and Tree Canopy (2018)

Western Region - Urban and Non-urban Areas

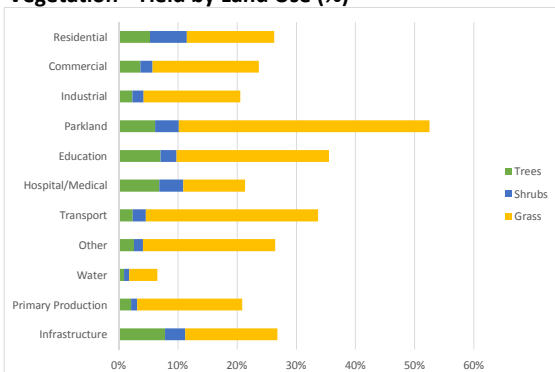
Tree Canopy Cover by LGA (%)



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

Low tree canopy yield on "other" land (2.6% compared with 22.0% for the whole metropolitan region).

High percentage of tree canopy on infrastructure (streets) (18.6% compared with 10.0% for the whole metropolitan region).

Low tree canopy yield on primary production land (2.1% compared with 12.4% for the whole metropolitan region).

Low tree canopy yield on parkland (6.2% compared with 28.7% for the whole metropolitan region).

Low tree canopy yield (3.8% compared with 16.2% for the whole metropolitan region).

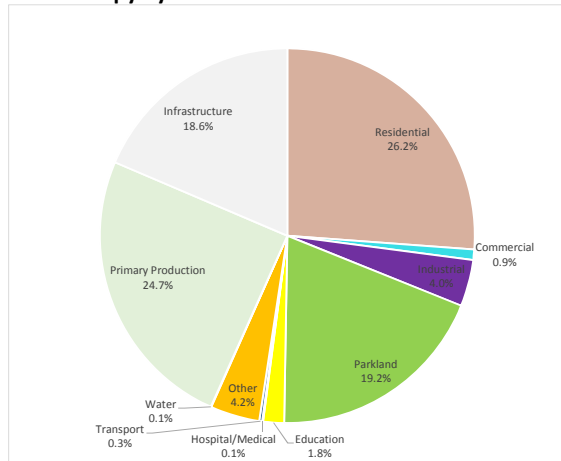
Low percentage of tree canopy on "other" land (4.2% compared with 15.6% for the whole metropolitan region).

Low tree canopy yield on residential land (5.3% compared with 16.2% for the whole metropolitan region).

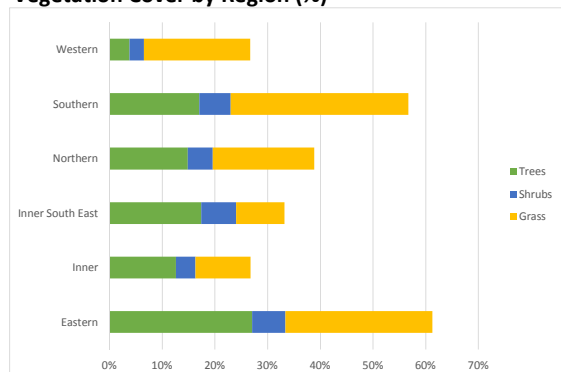
Low percentage of total vegetation on "other" land (6.2% compared with 14.6% for the whole metropolitan region).

Low tree canopy yield on infrastructure (streets) (7.9% compared with 18.1% for the whole metropolitan region).

Tree Canopy by Land Use

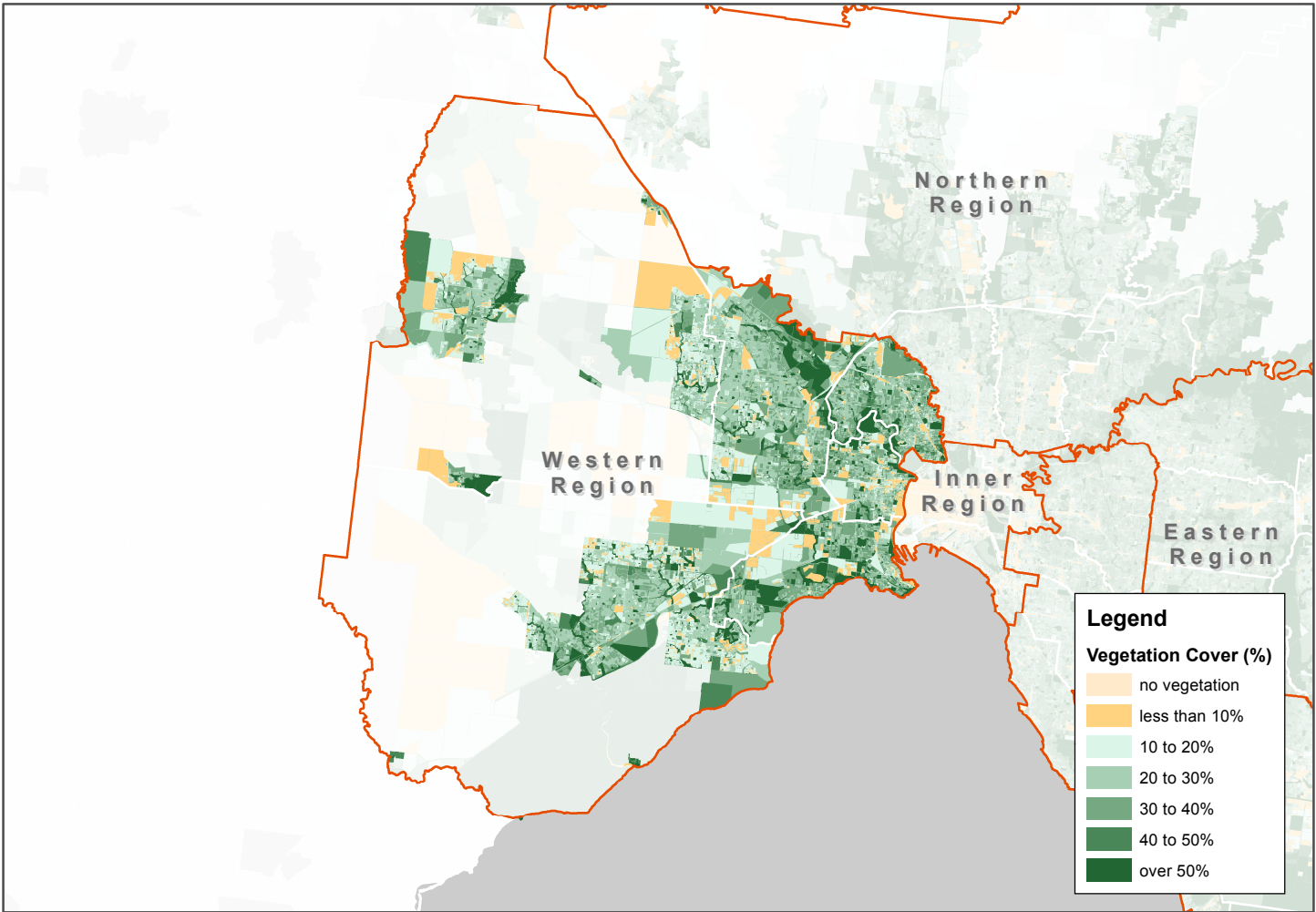


Vegetation Cover by Region (%)

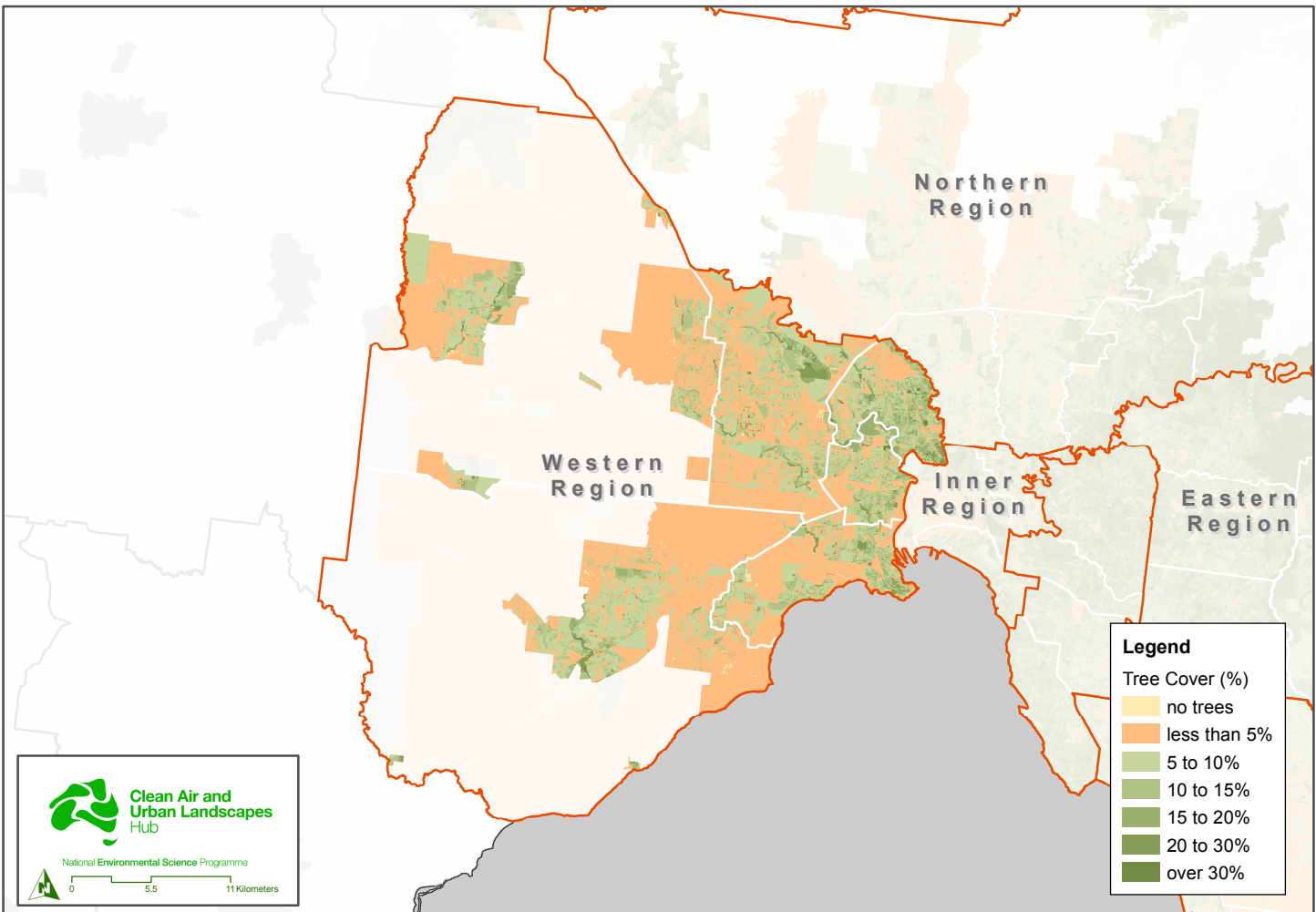


Western Region

Vegetation Cover - Modified Mesh Block



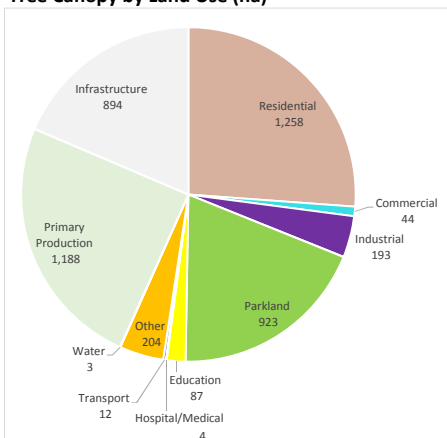
Tree Canopy - Modified Mesh Block



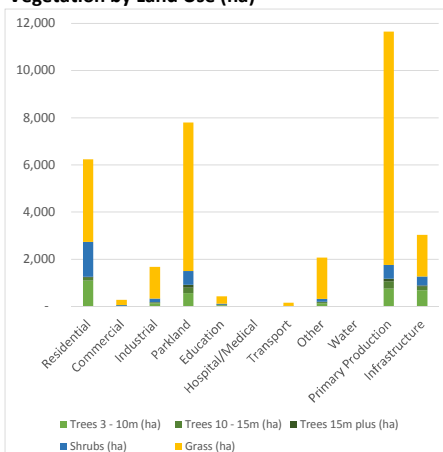
Vegetation Cover and Tree Canopy (2018) Western Region

Data Summary - Whole of Western Region

Tree Canopy by Land Use (ha)



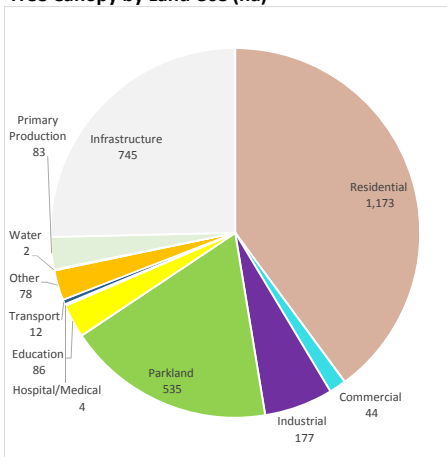
Vegetation by Land Use (ha)



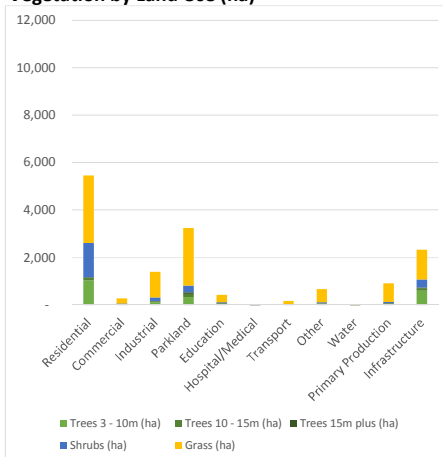
Key Statistics	Melbourne Overall	Western Region
Tree Canopy Cover (%)	16.2%	3.8%
Total vegetation Cover (%)	47.2%	26.7%
Shrub Cover (%)	5.1%	2.7%
Grass Cover (%)	25.9%	20.2%
Percentage of tree canopy on residential land	20.6%	26.2%
Percentage of tree canopy on parkland	20.1%	19.2%
Percentage of tree canopy on infrastructure	10.0%	18.6%
Percentage of tree canopy on "other" land	15.6%	4.2%
Percentage of tree canopy on primary production land	31.2%	24.7%

Data Summary - Urban Centres and Localities in Western Region

Tree Canopy by Land Use (ha)



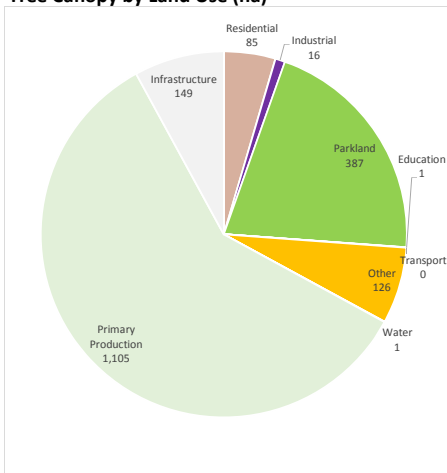
Vegetation by Land Use (ha)



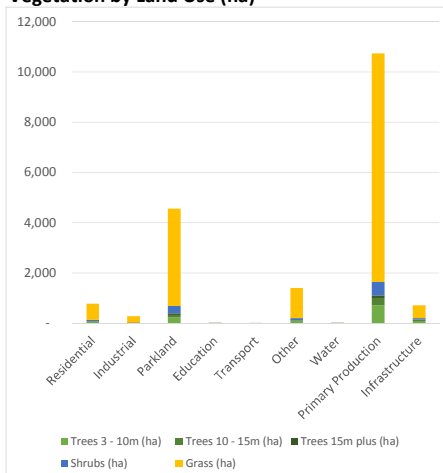
Key Statistics	Melbourne Urban Areas	Western Region
Tree Canopy Cover (%)	15.3%	5.5%
Total vegetation Cover (%)	42.0%	28.2%
Shrub Cover (%)	6.1%	4.4%
Grass Cover (%)	20.7%	18.2%
Percentage of tree canopy on residential land	46.7%	39.9%
Percentage of tree canopy on parkland	18.5%	18.2%
Percentage of tree canopy on infrastructure	15.7%	25.3%
Percentage of tree canopy on "other" land	6.6%	2.6%
Percentage of tree canopy on primary production land	7.2%	2.8%

Data Summary - Non-urban areas in Western Region

Tree Canopy by Land Use (ha)



Vegetation by Land Use (ha)



Key Statistics	Melbourne Non-urban Areas	Western Region
Tree Canopy Cover (%)	17.0%	2.6%
Total vegetation Cover (%)	51.3%	25.7%
Shrub Cover (%)	4.4%	1.4%
Grass Cover (%)	29.9%	21.6%
Percentage of tree canopy on residential land	2.3%	4.5%
Percentage of tree canopy on parkland	21.2%	20.7%
Percentage of tree canopy on infrastructure	6.1%	8.0%
Percentage of tree canopy on "other" land	22.0%	6.8%
Percentage of tree canopy on primary production land	48.1%	59.1%

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.

Western 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	3,501	1,484	1,097	124	37	1,258	6,243	23,748
Commercial	213	24	32	9	3	44	281	1,185
Industrial	1,333	153	138	39	16	193	1,680	8,164
Parkland	6,294	589	569	234	120	923	7,806	14,862
Education	313	32	58	20	9	87	432	1,216
Hospital/Medical	6	2	3	1	0	4	13	59
Transport	148	11	9	2	1	12	171	508
Other	1,750	119	141	46	16	204	2,073	7,837
Water	15	3	1	1	1	3	20	304
Primary Production	9,884	585	764	310	114	1,188	11,657	55,788
Infrastructure	1,766	384	699	144	50	894	3,044	11,349
Total	25,223	3,388	3,511	931	366	4,808	33,420	125,020

Vegetation Cover (%)

Land Use	Grass (%)	Shrubs (%)	Trees 3 to 10m (%)	Trees 10 to 15m (%)	Trees 15m plus (%)	Total Trees (%)	Total Vegetation (%)
Residential	14.7%	6.2%	4.6%	0.5%	0.2%	5.3%	26.3%
Commercial	18.0%	2.1%	2.7%	0.8%	0.3%	3.7%	23.7%
Industrial	16.3%	1.9%	1.7%	0.5%	0.2%	2.4%	20.6%
Parkland	42.3%	4.0%	3.8%	1.6%	0.8%	6.2%	52.5%
Education	25.7%	2.7%	4.8%	1.6%	0.7%	7.1%	35.5%
Hospital/Medical	10.5%	4.0%	5.3%	1.2%	0.5%	6.9%	21.4%
Transport	29.1%	2.2%	1.8%	0.4%	0.2%	2.4%	33.7%
Other	22.3%	1.5%	1.8%	0.6%	0.2%	2.6%	26.4%
Water	4.8%	0.8%	0.5%	0.2%	0.3%	0.9%	6.6%
Primary Production	17.7%	1.0%	1.4%	0.6%	0.2%	2.1%	20.9%
Infrastructure	15.6%	3.4%	6.2%	1.3%	0.4%	7.9%	26.8%
Total	20.2%	2.7%	2.8%	0.7%	0.3%	3.8%	26.7%

* 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.

Western 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.

Western 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	2,854	1,437	1,038	105	30	1,173	5,465	20,229
Commercial	213	24	32	9	3	44	281	1,185
Industrial	1,087	142	125	36	15	177	1,406	7,019
Parkland	2,424	287	342	132	61	535	3,245	6,941
Education	312	32	58	20	8	86	431	1,213
Hospital/Medical	6	2	3	1	0	4	13	59
Transport	148	11	9	2	1	12	171	508
Other	556	44	47	20	10	78	678	2,136
Water	14	2	1	0	1	2	19	218
Primary Production	788	50	55	20	8	83	921	4,645
Infrastructure	1,263	327	609	103	33	745	2,335	8,968
Total	9,666	2,360	2,320	448	171	2,939	14,964	53,121

Vegetation Cover (%)

Land Use	Grass (%)	Shrubs (%)	Trees 3 to 10m (%)	Trees 10 to 15m (%)	Trees 15m plus (%)	Total Trees (%)	Total Vegetation (%)
Residential	14.1%	7.1%	5.1%	0.5%	0.1%	5.8%	27.0%
Commercial	18.0%	2.1%	2.7%	0.8%	0.3%	3.7%	23.7%
Industrial	15.5%	2.0%	1.8%	0.5%	0.2%	2.5%	20.0%
Parkland	34.9%	4.1%	4.9%	1.9%	0.9%	7.7%	46.8%
Education	25.7%	2.7%	4.8%	1.6%	0.7%	7.1%	35.5%
Hospital/Medical	10.5%	4.0%	5.3%	1.2%	0.5%	6.9%	21.4%
Transport	29.1%	2.2%	1.8%	0.4%	0.2%	2.4%	33.7%
Other	26.0%	2.1%	2.2%	1.0%	0.5%	3.6%	31.7%
Water	6.4%	1.1%	0.5%	0.2%	0.4%	1.1%	8.6%
Primary Production	17.0%	1.1%	1.2%	0.4%	0.2%	1.8%	19.8%
Infrastructure	14.1%	3.6%	6.8%	1.2%	0.4%	8.3%	26.0%
Total	18.2%	4.4%	4.4%	0.8%	0.3%	5.5%	28.2%

* 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.

Western 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.

Western 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	647	46	59	20	6	85	779	3,519
Industrial	246	12	12	3	1	16	274	1,145
Parkland	3,870	303	226	102	59	387	4,560	7,921
Education	1	0	0	0	0	1	1	3
Transport	0	0	0	-	-	0	0	1
Other	1,194	75	94	26	7	126	1,395	5,701
Water	1	0	0	0	0	1	1	86
Primary Production	9,097	535	709	290	106	1,105	10,736	51,143
Infrastructure	503	57	90	41	17	149	708	2,381
Total	15,558	1,028	1,191	483	195	1,869	18,455	71,899

Vegetation Cover (%)

Land Use	Grass (%)	Shrubs (%)	Trees 3 to 10m (%)	Trees 10 to 15m (%)	Trees 15m plus (%)	Total Trees (%)	Total Vegetation (%)
Residential	18.4%	1.3%	1.7%	0.6%	0.2%	2.4%	22.1%
Industrial	21.5%	1.0%	1.1%	0.3%	0.1%	1.4%	23.9%
Parkland	48.9%	3.8%	2.9%	1.3%	0.7%	4.9%	57.6%
Education	24.9%	4.9%	10.2%	4.3%	3.9%	18.4%	48.3%
Transport	16.5%	0.5%	0.4%	0.0%	0.0%	0.4%	17.3%
Other	20.9%	1.3%	1.6%	0.5%	0.1%	2.2%	24.5%
Water	0.8%	0.2%	0.3%	0.2%	0.1%	0.6%	1.6%
Primary Production	17.8%	1.0%	1.4%	0.6%	0.2%	2.2%	21.0%
Infrastructure	21.1%	2.4%	3.8%	1.7%	0.7%	6.2%	29.7%
Total	21.6%	1.4%	1.7%	0.7%	0.3%	2.6%	25.7%

* 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.

Western 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.