Appendix 1

Table s1. Mean percentage of vegetation types and UHI (2018) for LGA

LGA_NAME16	No. Meshblocks	M_PerGrass	M_PerShrub	M_PerTr3_10m	M_PerTr10_15m	M_PerTr15mPl	M_PerAnyTree	M_PerAnyVeg	M_PerTrAndSh	M_UHI_2018	STD_UHI_2018
Banyule (C)	1555	8.58	6.87	11.92	4.21	2.39	18.52	33.97	25.39	8.25	1.01
Bayside (C)	1278	7.56	7.26	12.50	2.41	0.74	15.66	30.48	22.92	7.36	1.58
Boroondara (C)	2237	6.16	6.21	13.66	3.88	1.53	19.06	31.43	25.28	7.50	0.80
Brimbank (C)	2256	15.64	6.40	5.50	0.91	0.28	6.69	28.73	13.09	10.75	0.99
Cardinia (S)	1051	20.21	6.23	7.42	3.13	5.96	16.50	42.94	22.73	9.22	3.68
Casey (C)	3051	20.79	7.11	7.80	1.57	0.65	10.02	37.92	17.13	10.70	2.28
Darebin (C)	1923	12.08	7.77	8.92	1.40	0.44	10.76	30.61	18.54	8.53	0.80
Frankston (C)	1900	14.52	8.24	11.52	2.46	0.82	14.80	37.56	23.04	8.23	1.74
Glen Eira (C)	1714	6.99	6.41	10.56	1.47	0.39	12.42	25.82	18.84	8.63	0.65
Greater Dandenong (C)	1864	16.51	6.73	6.47	1.10	0.50	8.07	31.31	14.80	9.26	0.97
Hobsons Bay (C)	1265	18.97	6.89	7.22	1.13	0.28	8.63	34.50	15.52	7.94	1.81
Hume (C)	2073	16.40	6.21	6.17	1.25	0.39	7.82	30.43	14.03	9.23	0.92
Kingston (C) (Vic.)	2217	13.28	7.14	7.55	1.05	0.32	8.93	29.35	16.06	9.05	1.73
Knox (C)	1729	12.17	6.11	9.98	3.41	2.00	15.38	33.66	21.49	7.52	1.41
Macedon Ranges (S)	38	14.66	4.83	7.34	3.43	1.86	12.63	32.12	17.46	6.41	1.62
Manningham (C)	1405	9.65	7.29	11.71	4.02	3.10	18.84	35.78	26.13	7.95	1.60
Maribyrnong (C)	1096	11.34	6.43	7.82	0.93	0.26	9.02	26.79	15.45	9.35	1.19

Maroondah (C)	1383	8.42	5.53	11.88	4.98	3.56	20.41	34.36	25.95	7.03	1.06
Melbourne (C)	1323	3.44	2.42	6.92	3.06	1.62	11.61	17.47	14.03	7.94	1.54
Melton (C)	1448	13.44	4.92	4.82	0.66	0.22	5.70	24.06	10.62	10.70	1.33
Mitchell (S)	158	20.39	4.95	6.14	2.39	1.07	9.61	34.94	14.56	6.13	1.34
Monash (C)	2179	9.89	6.79	10.07	2.24	0.97	13.29	29.96	20.07	8.43	0.78
Moonee Valley (C)	1526	11.39	6.85	8.36	1.52	0.59	10.47	28.71	17.32	9.63	0.82
Moorabool (S)	10	27.13	5.30	4.57	1.01	0.38	5.95	38.38	11.26	9.60	2.65

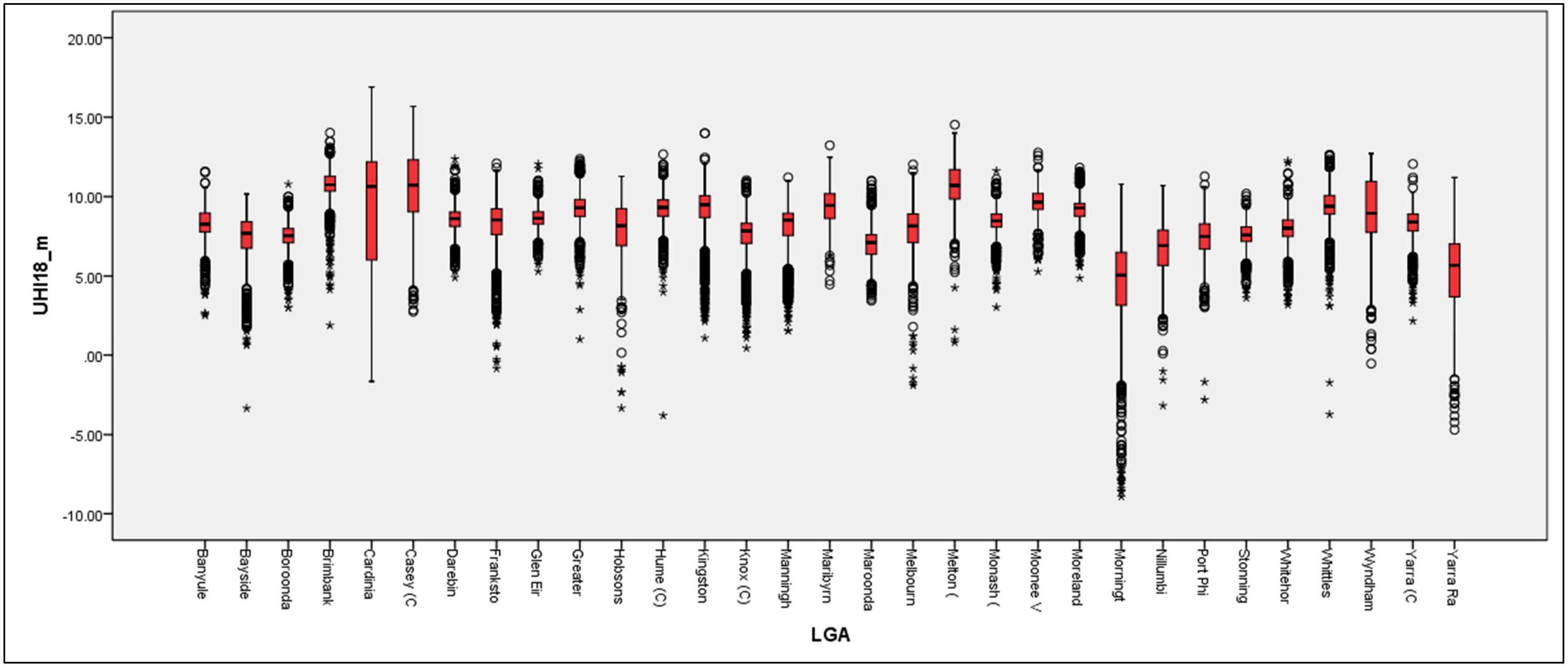

Figure s1. Overview of UHI effect in Mesh Blocks across LGAs (LGA_name2016)

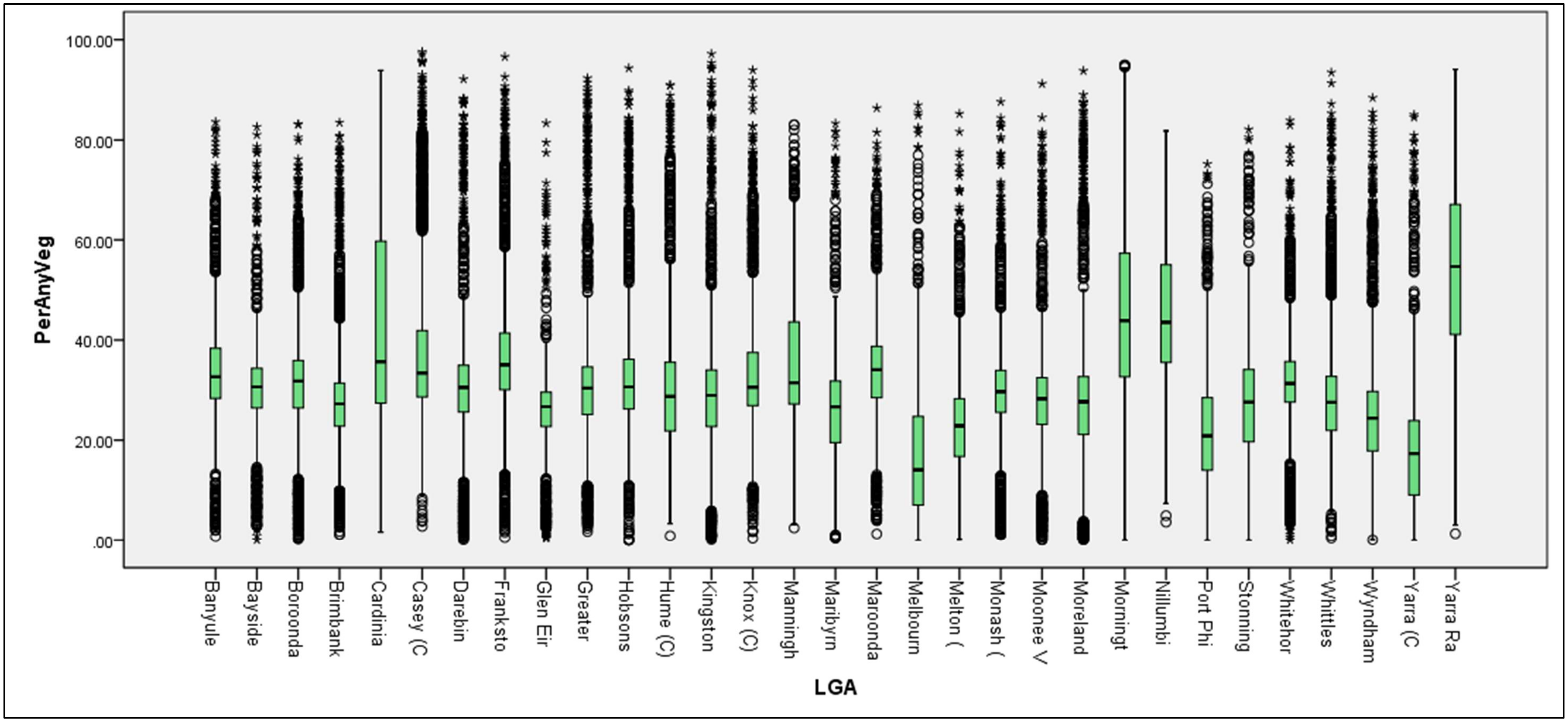

Figure s2. Overview of percentage of all vegetation types in Mesh Blocks across LGAs

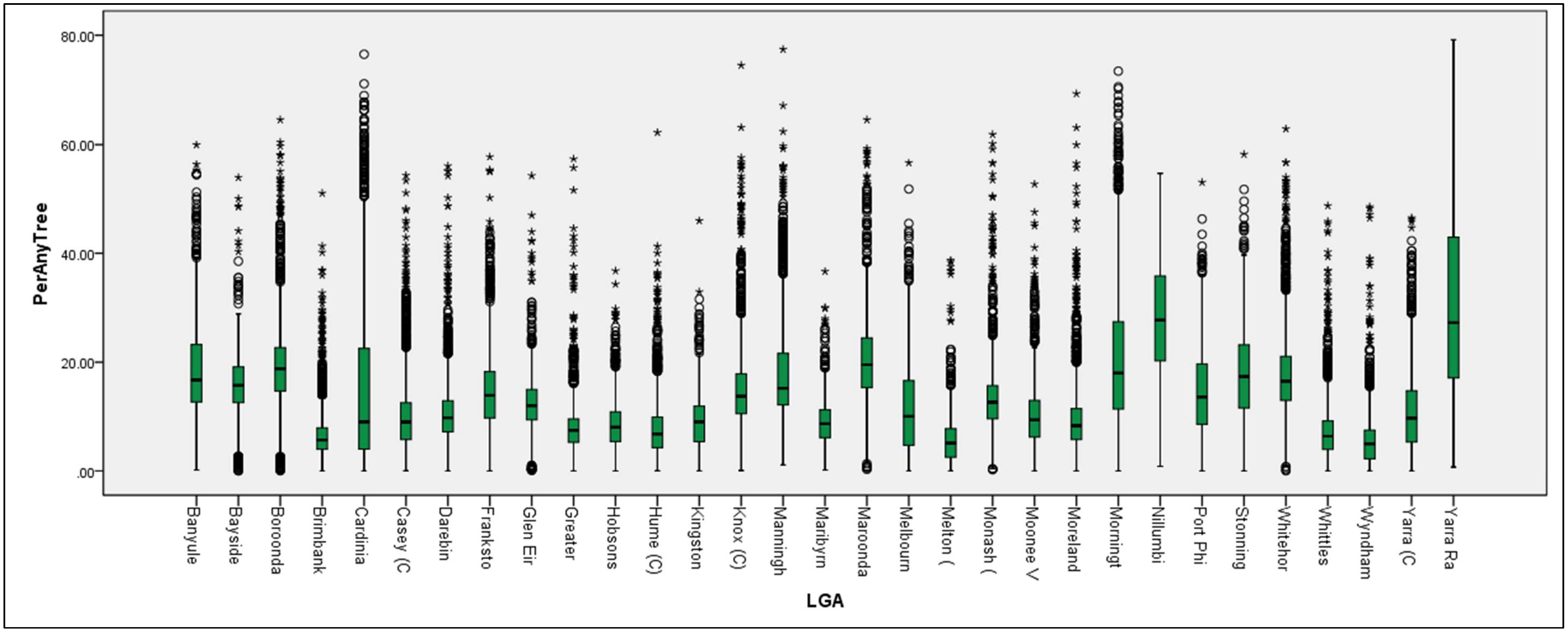

Figure s3. Overview of percentage of Trees in Mesh Blocks across SA3s

Appendix 2

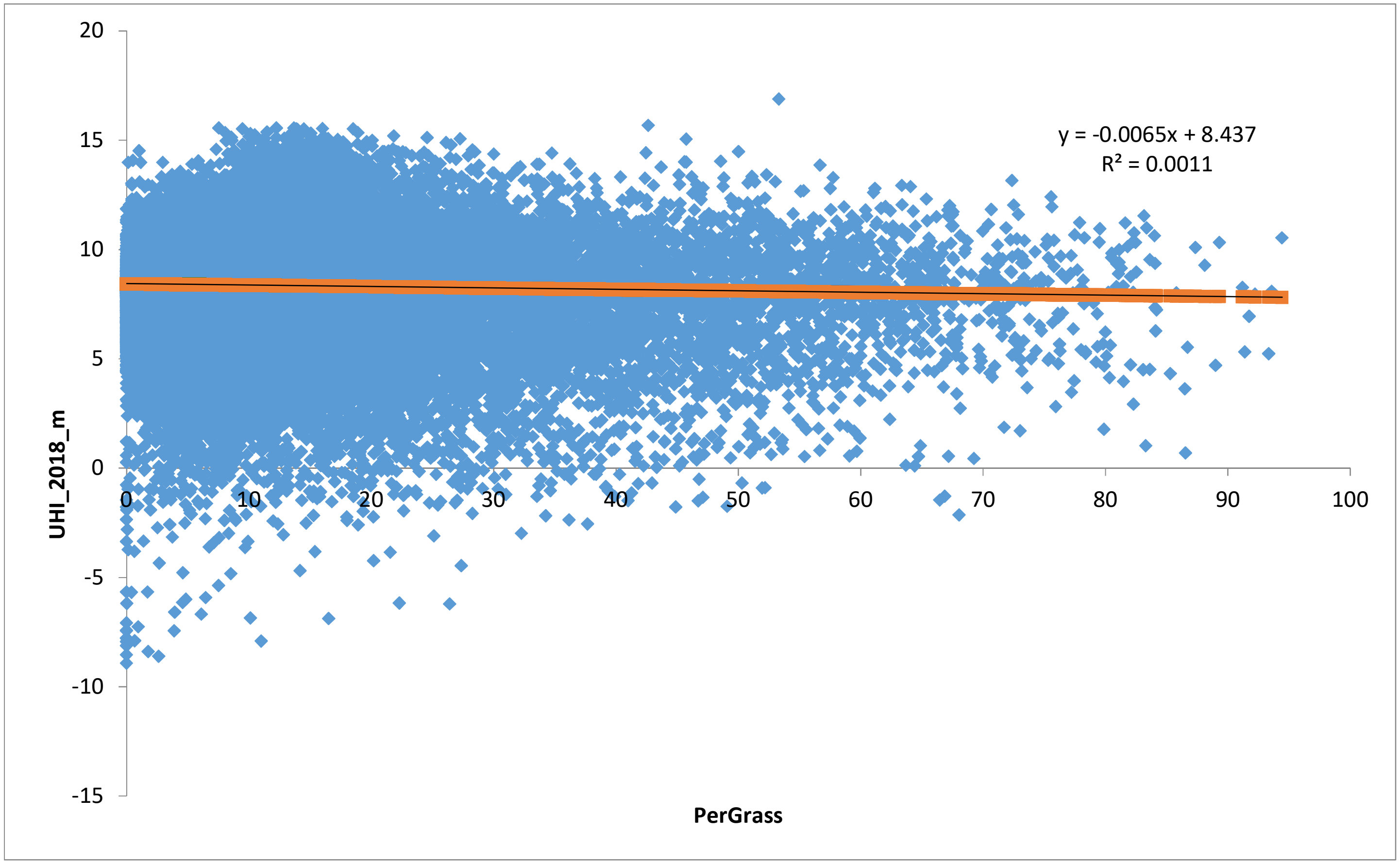

Figure s4. Relationship between UHI_2018_m and PerGrass

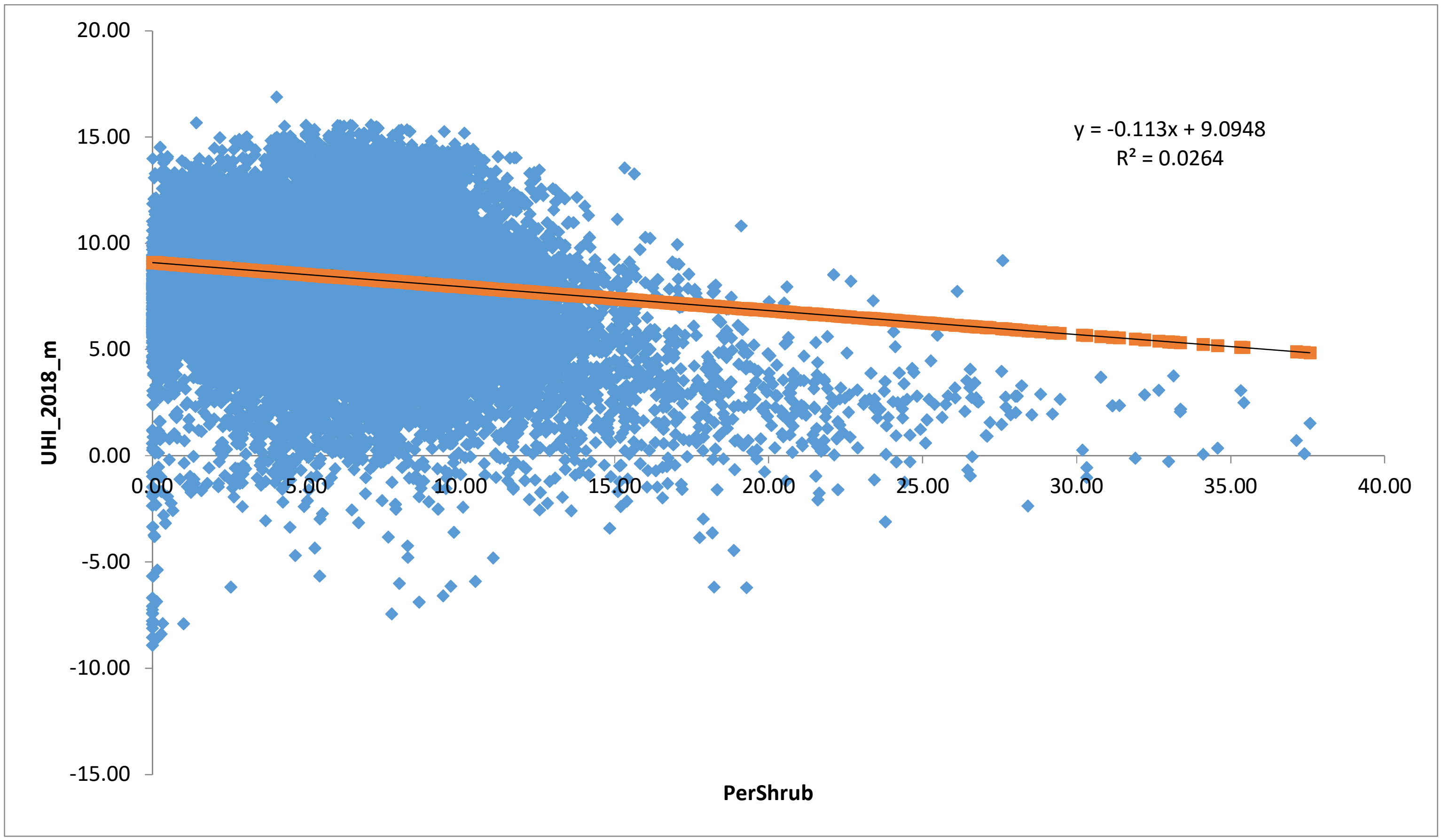

Figure s5. Relationship between UHI_2018_m and PerShrub

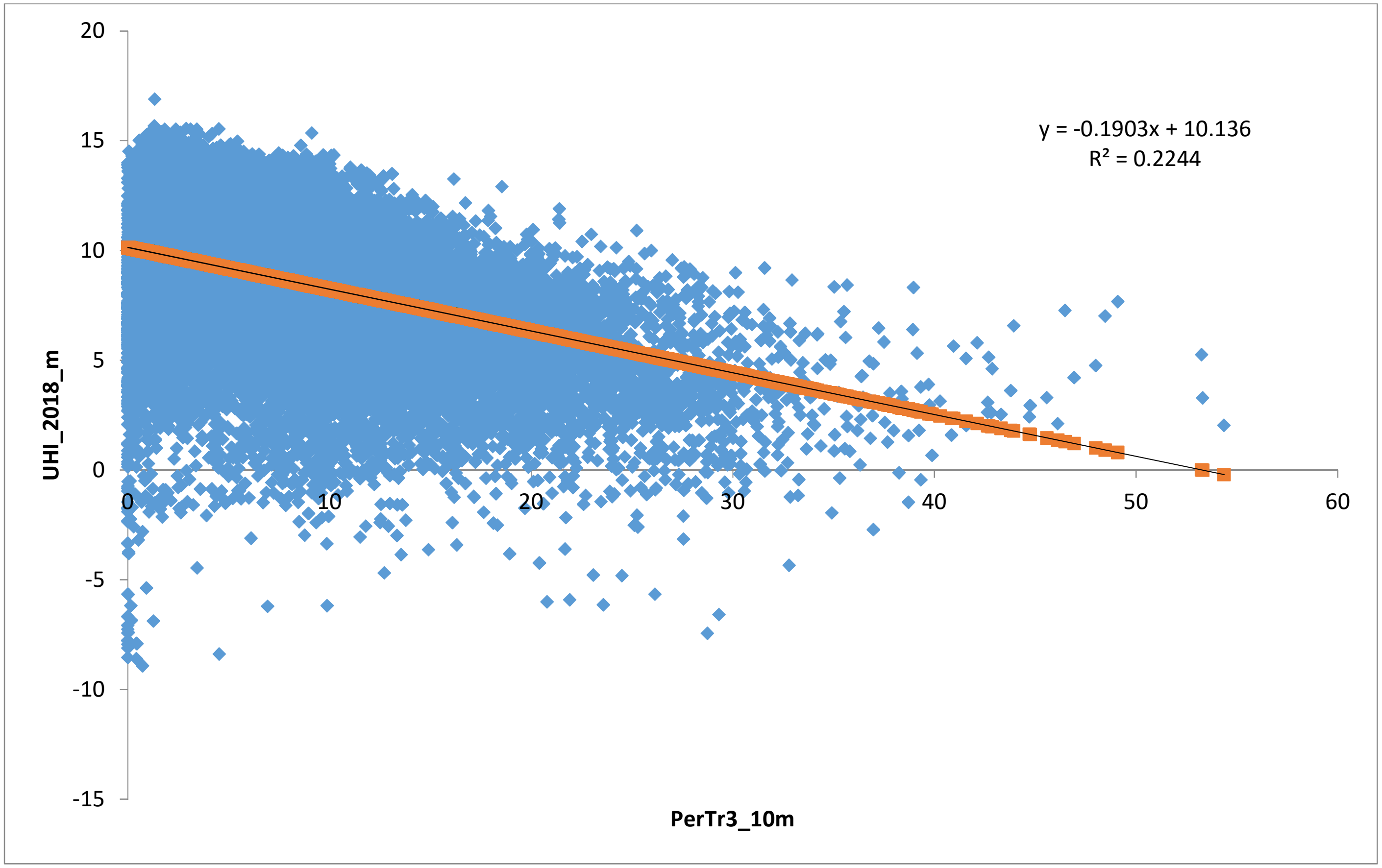

Figure s6. Relationship between UHI_2018_m and PerTree3_10m

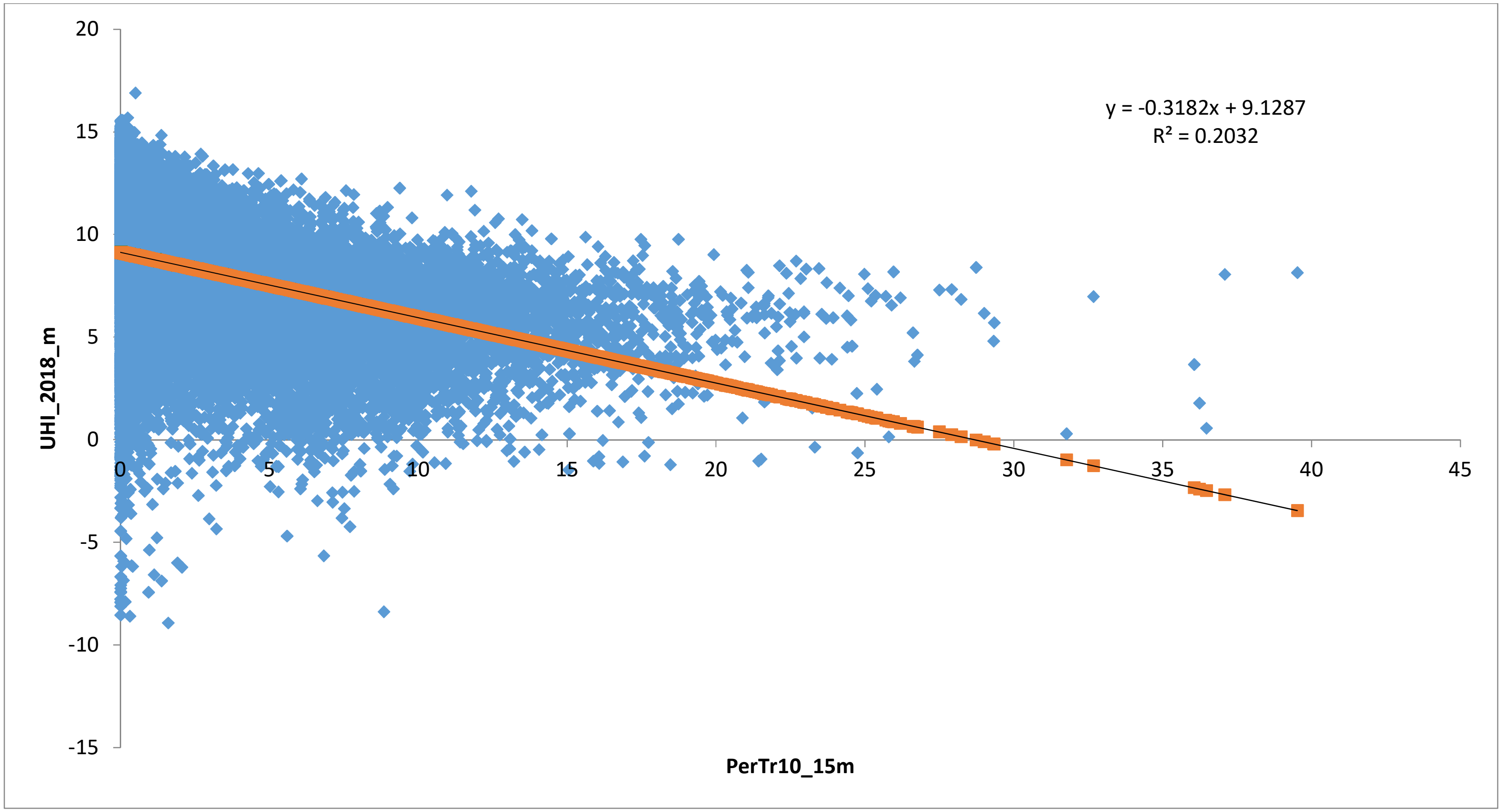

Figure s7. Relationship between UHI_2018_m and PerTree10_15m

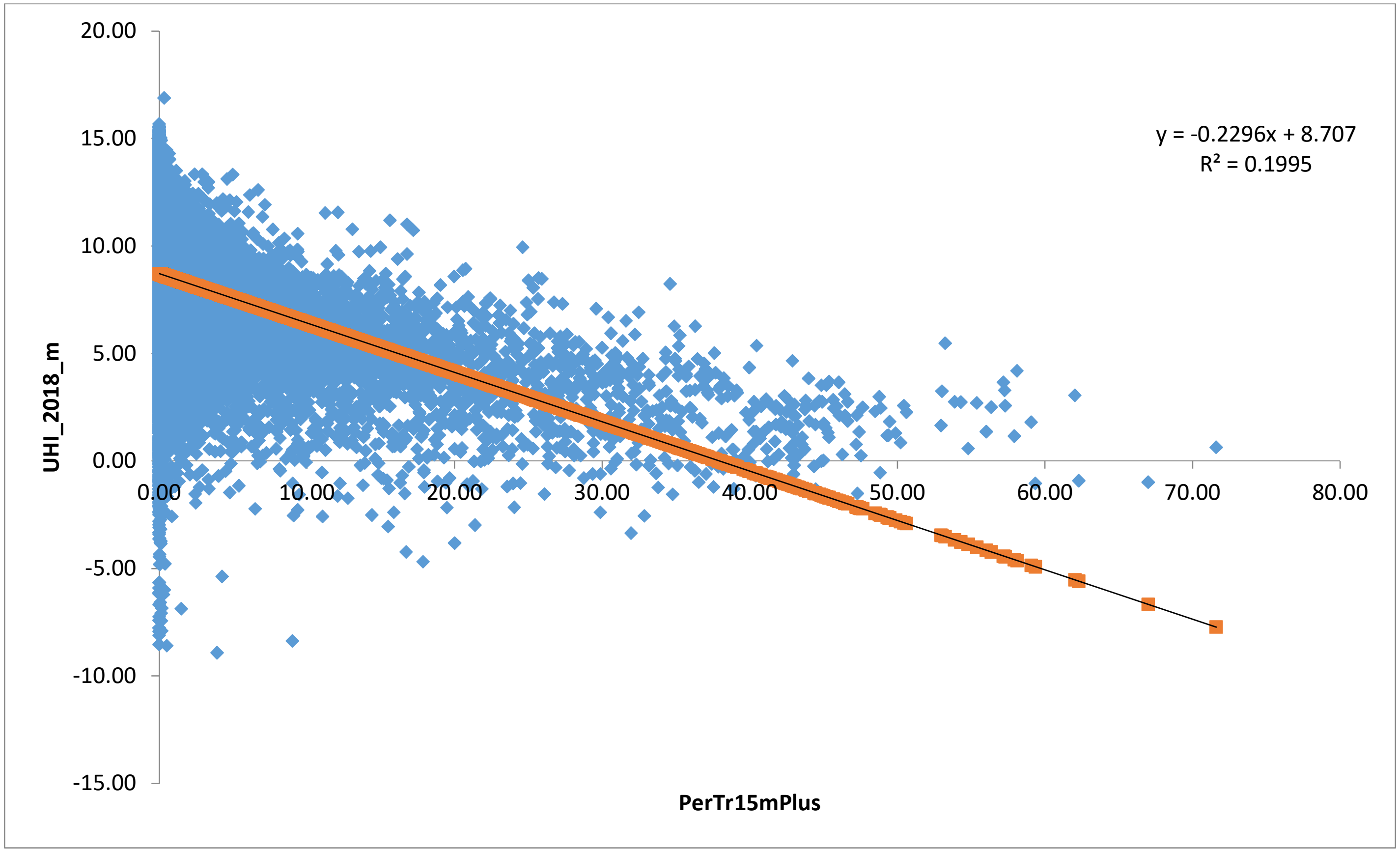

Figure s8. Relationship between UHI_2014_m and PerTree_15m_plus

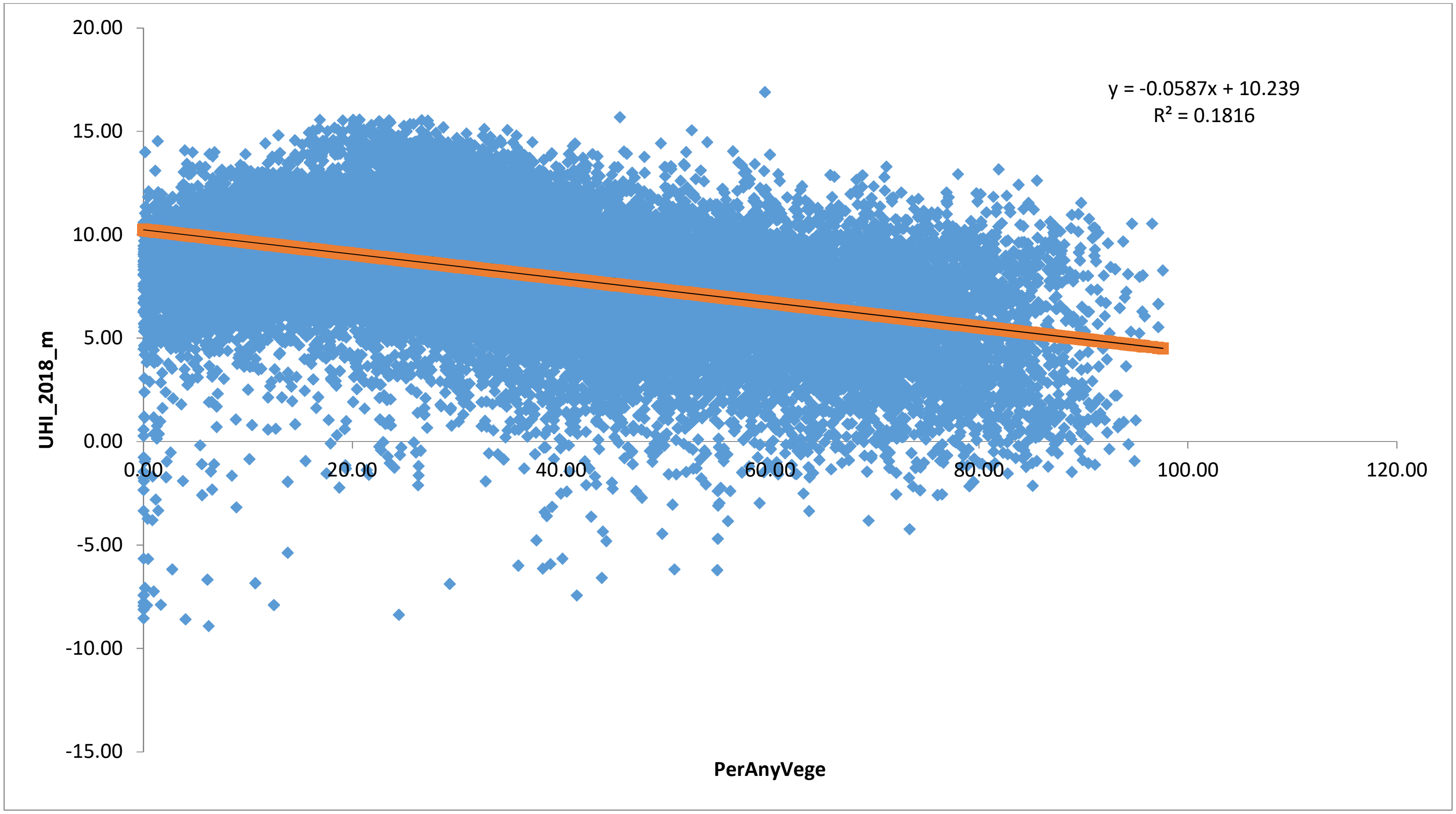

Figure s9. Relationship between UHI_2018_m and PerAnyVegetation

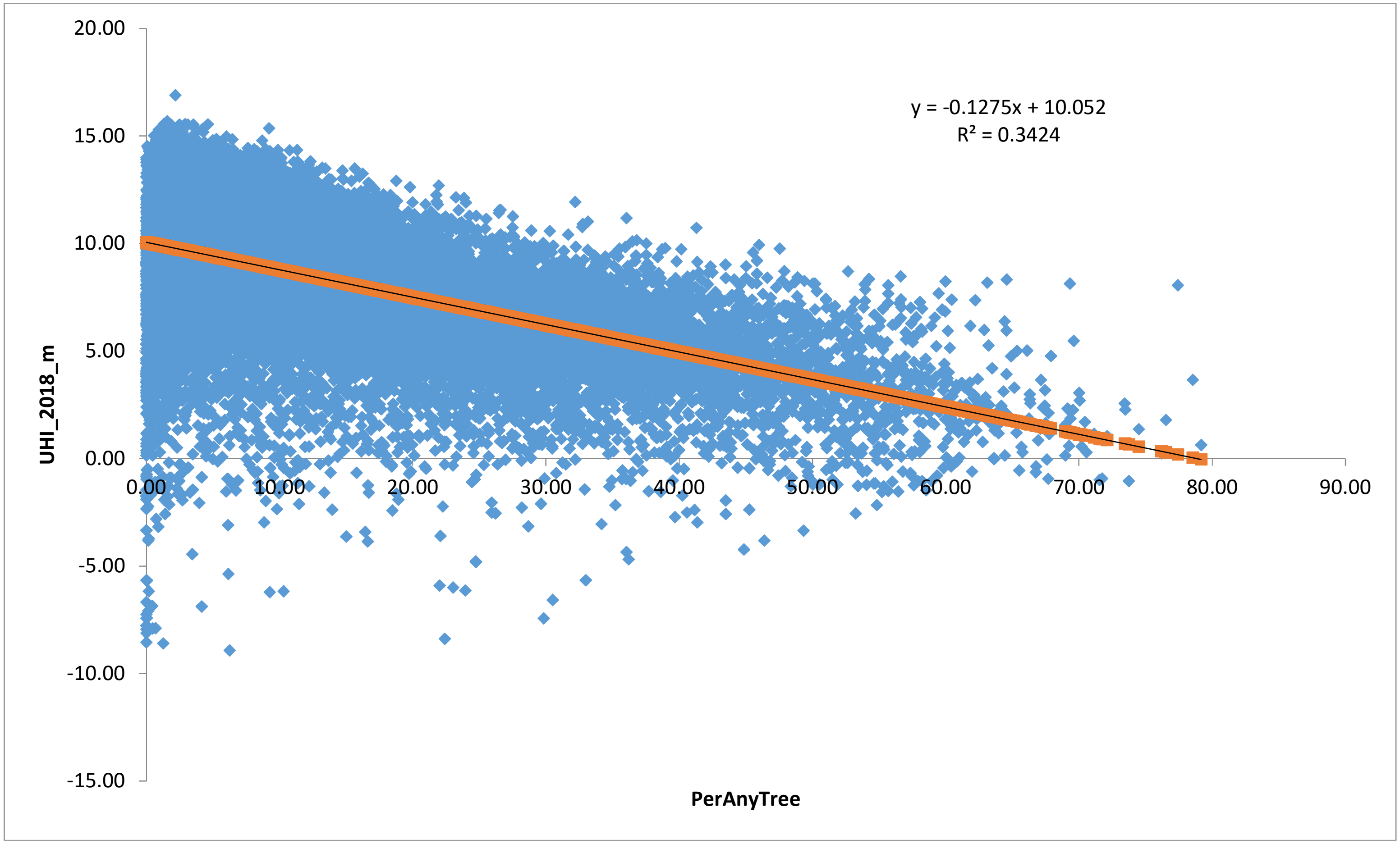

Figure s10. Relationship between UHI_2018_m and PerAnyTree

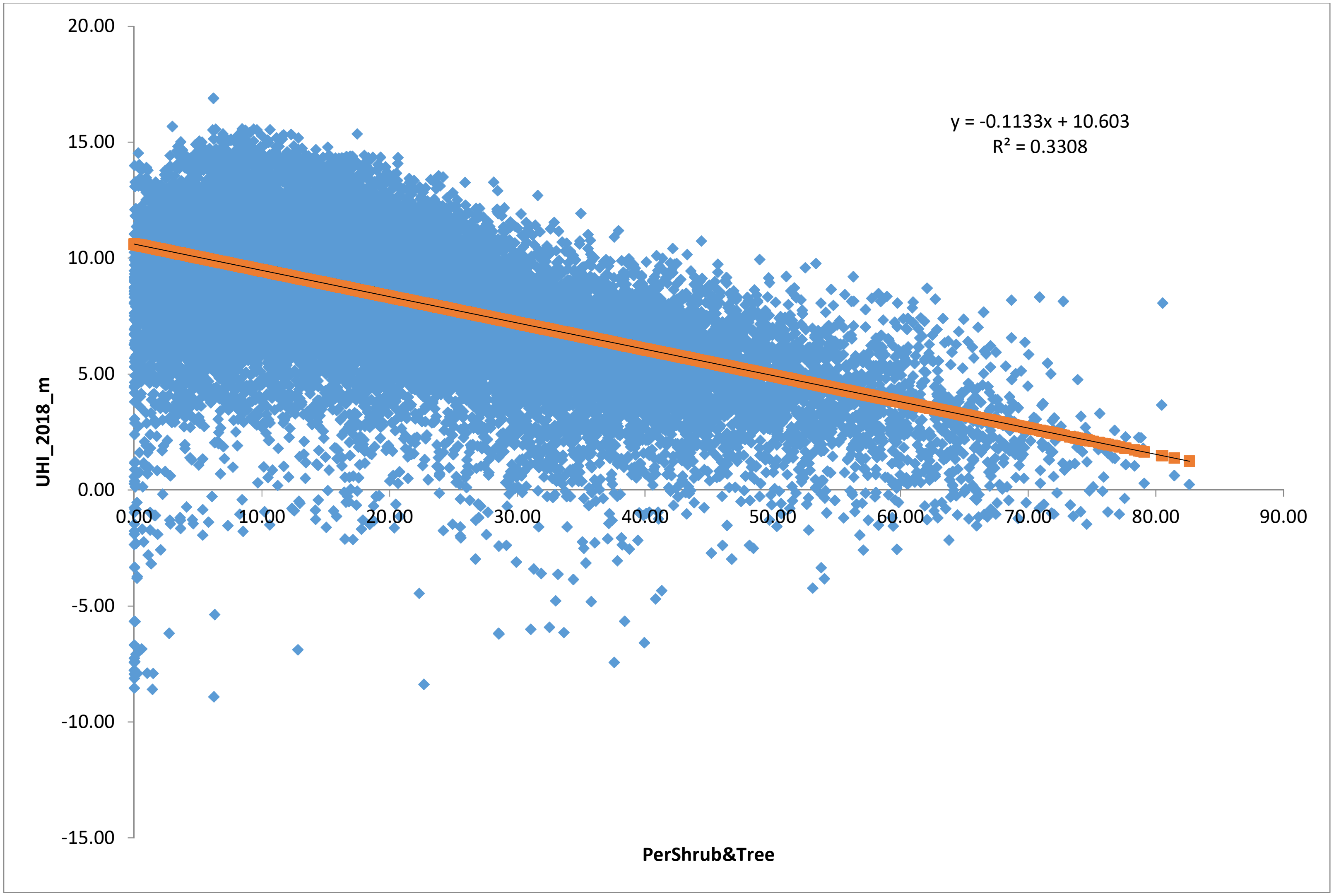

Figure s11. Relationship between UHI_m_2018_m and PerShrub&Tree

Appendix 3

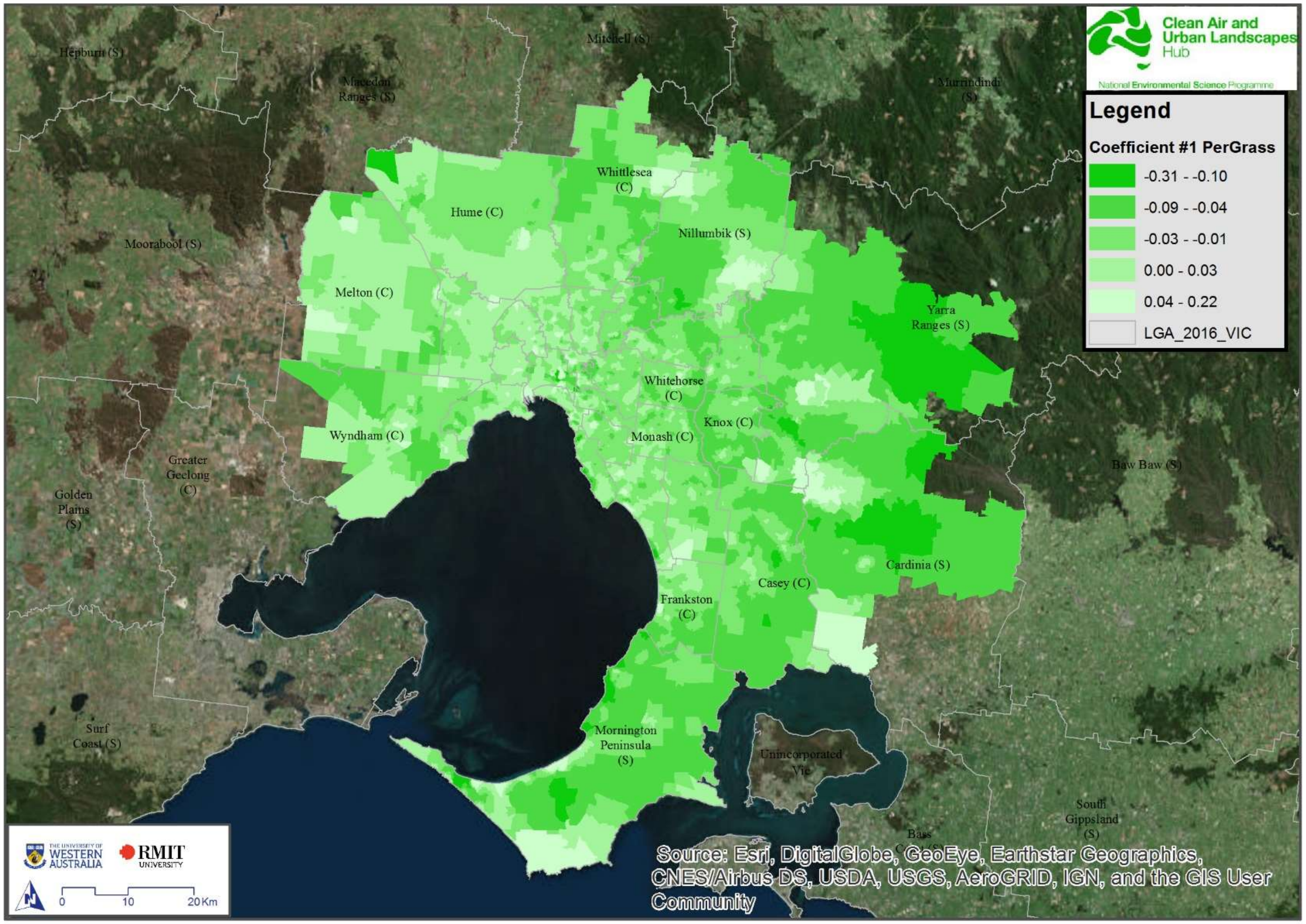

Figure s12. Local coefficients of GWR model for Grass on LST

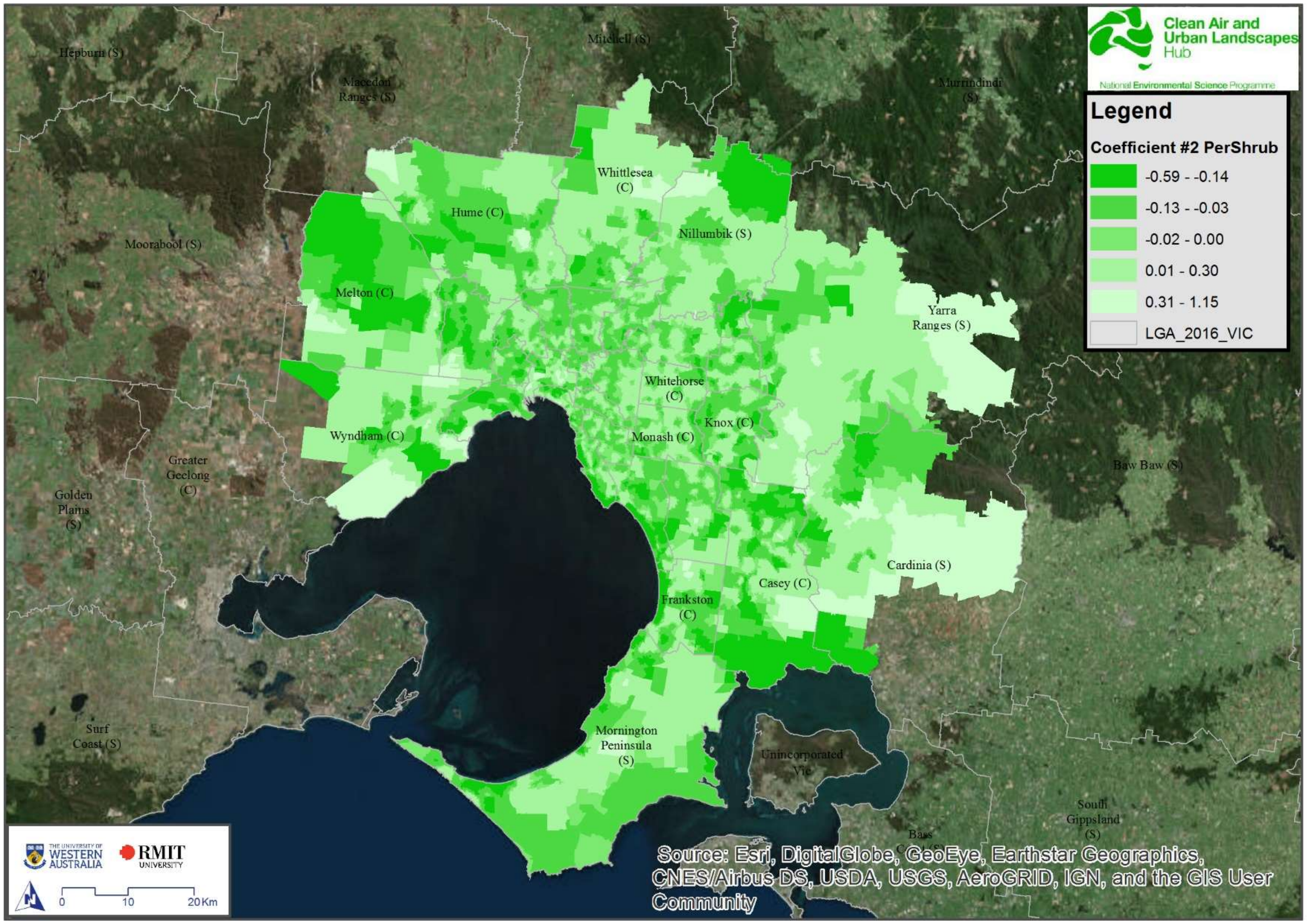

Figure s12. Local coefficients of GWR model for Shrubs on LST

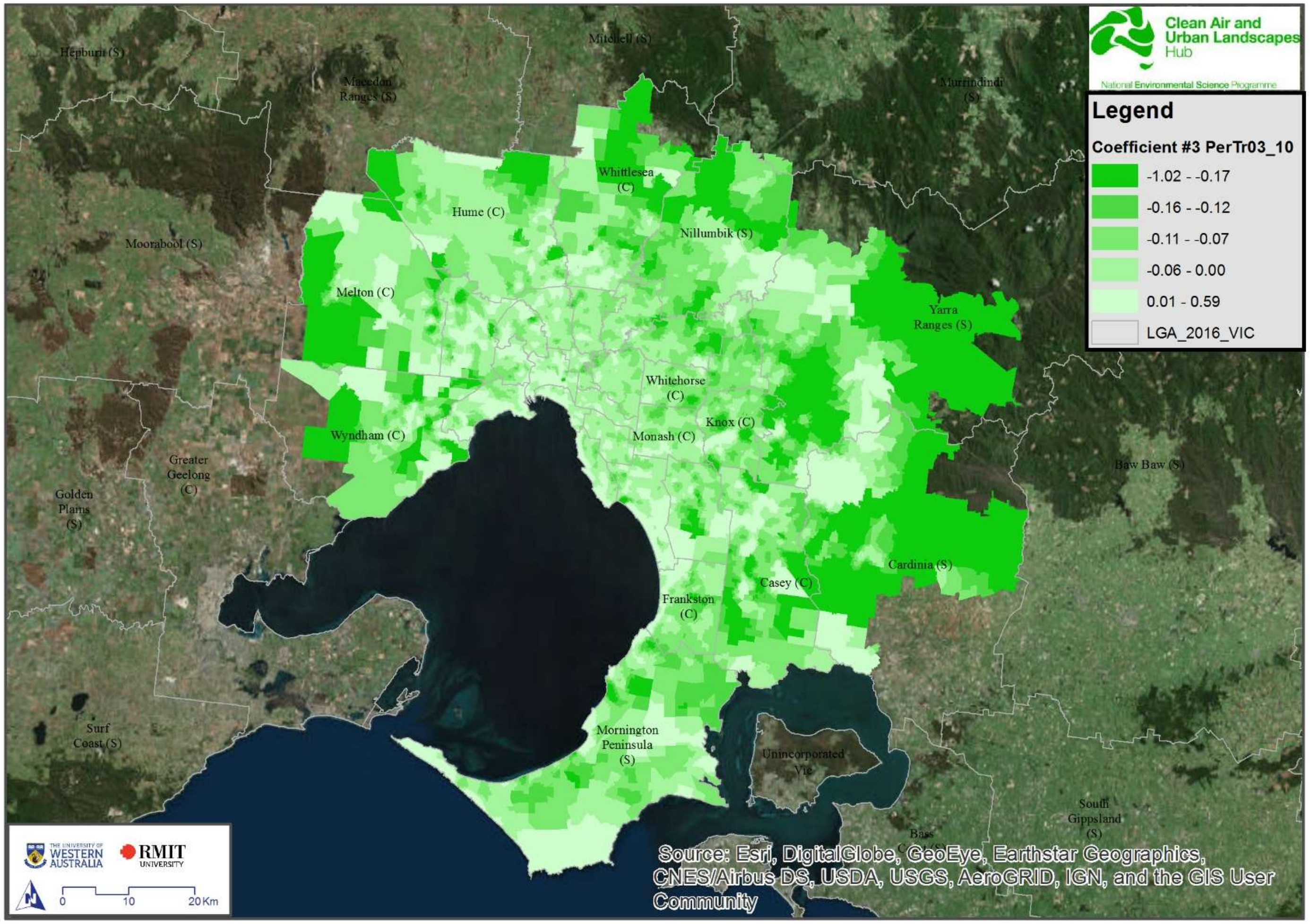

Figure s12. Local coefficients of GWR model for Trees (3-10m) on LST

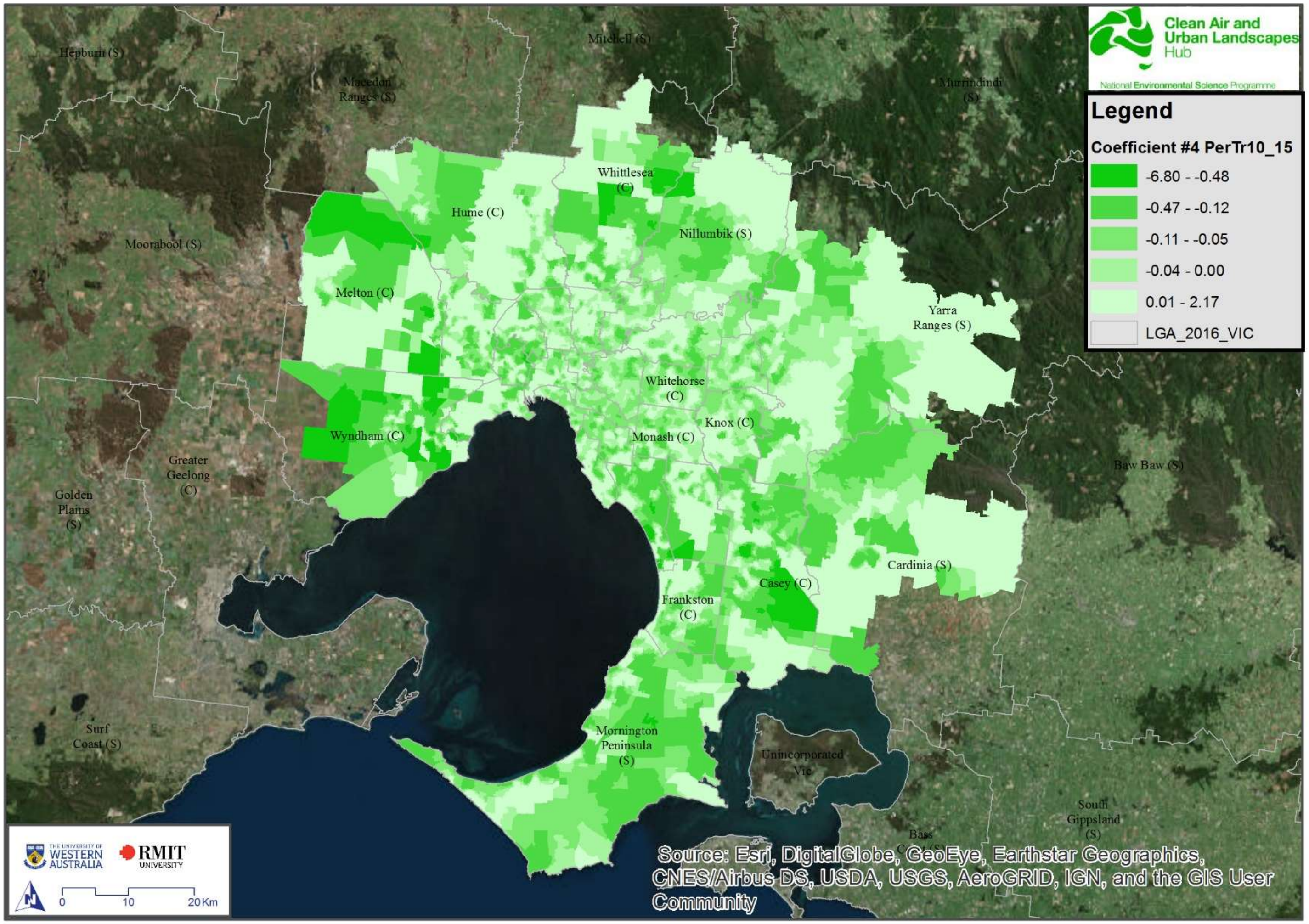

Figure s13. Local coefficients of GWR model for Trees (10_15m) on LST

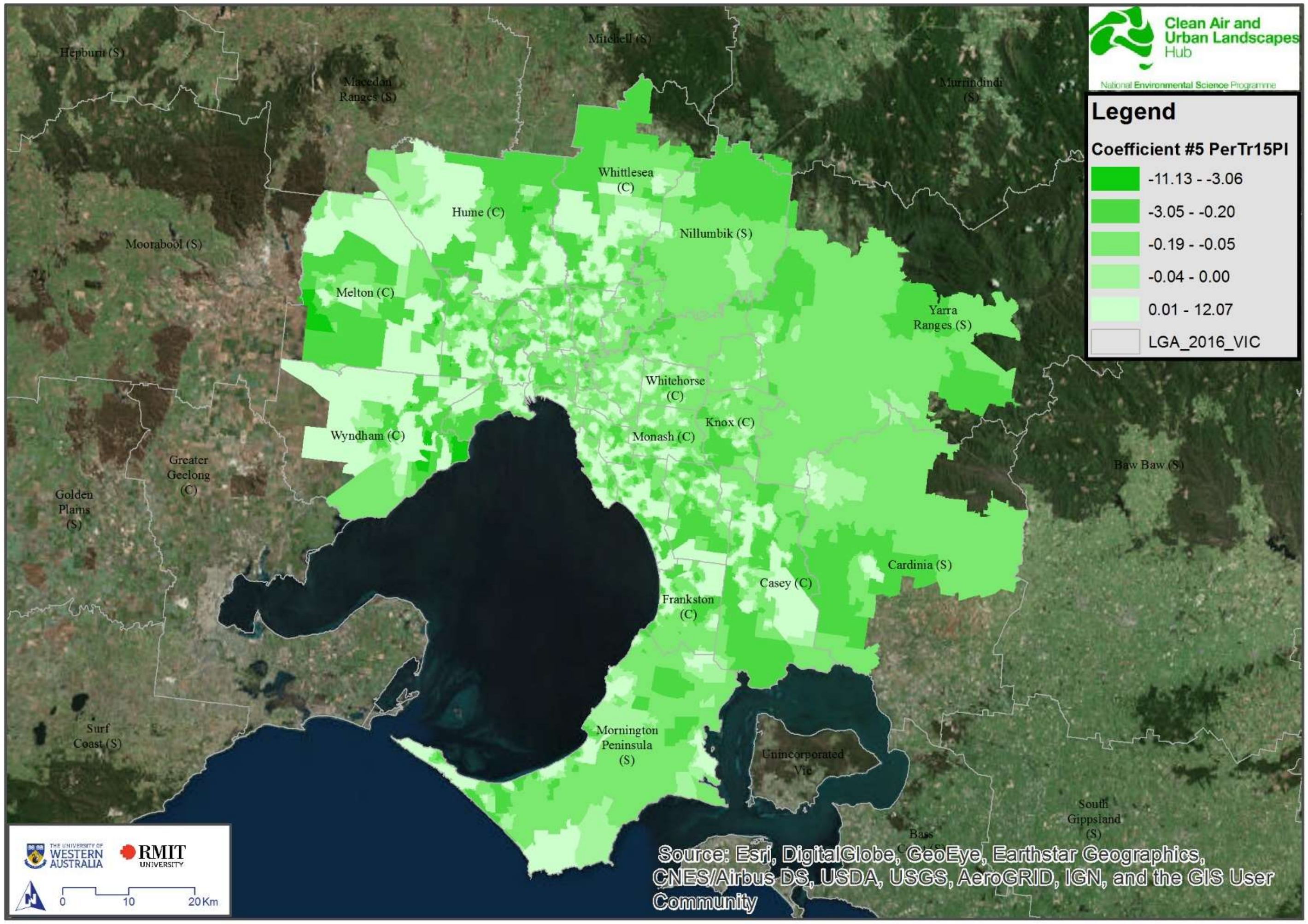

Figure s14. Local coefficients of GWR model for Trees (>15m) on LST