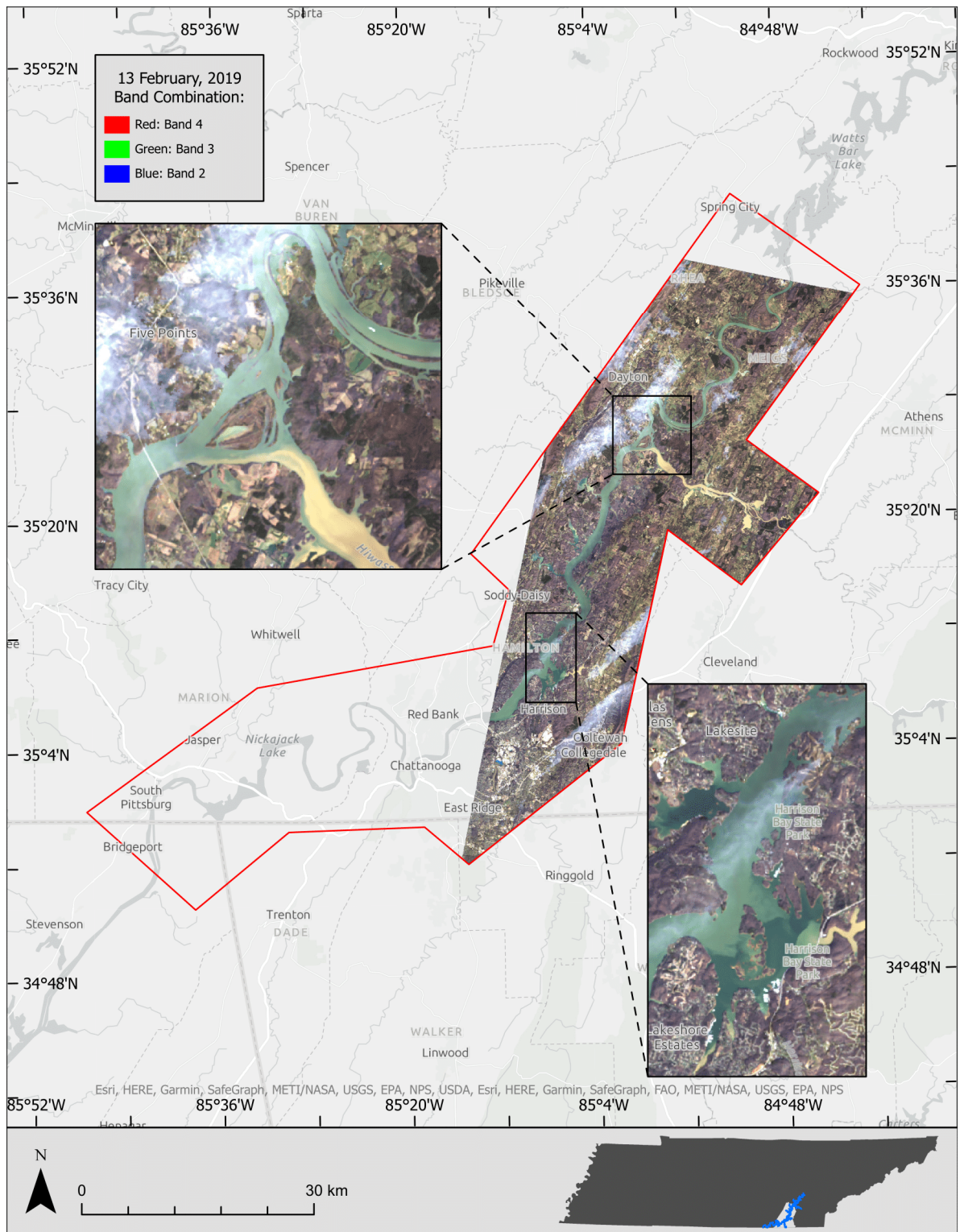
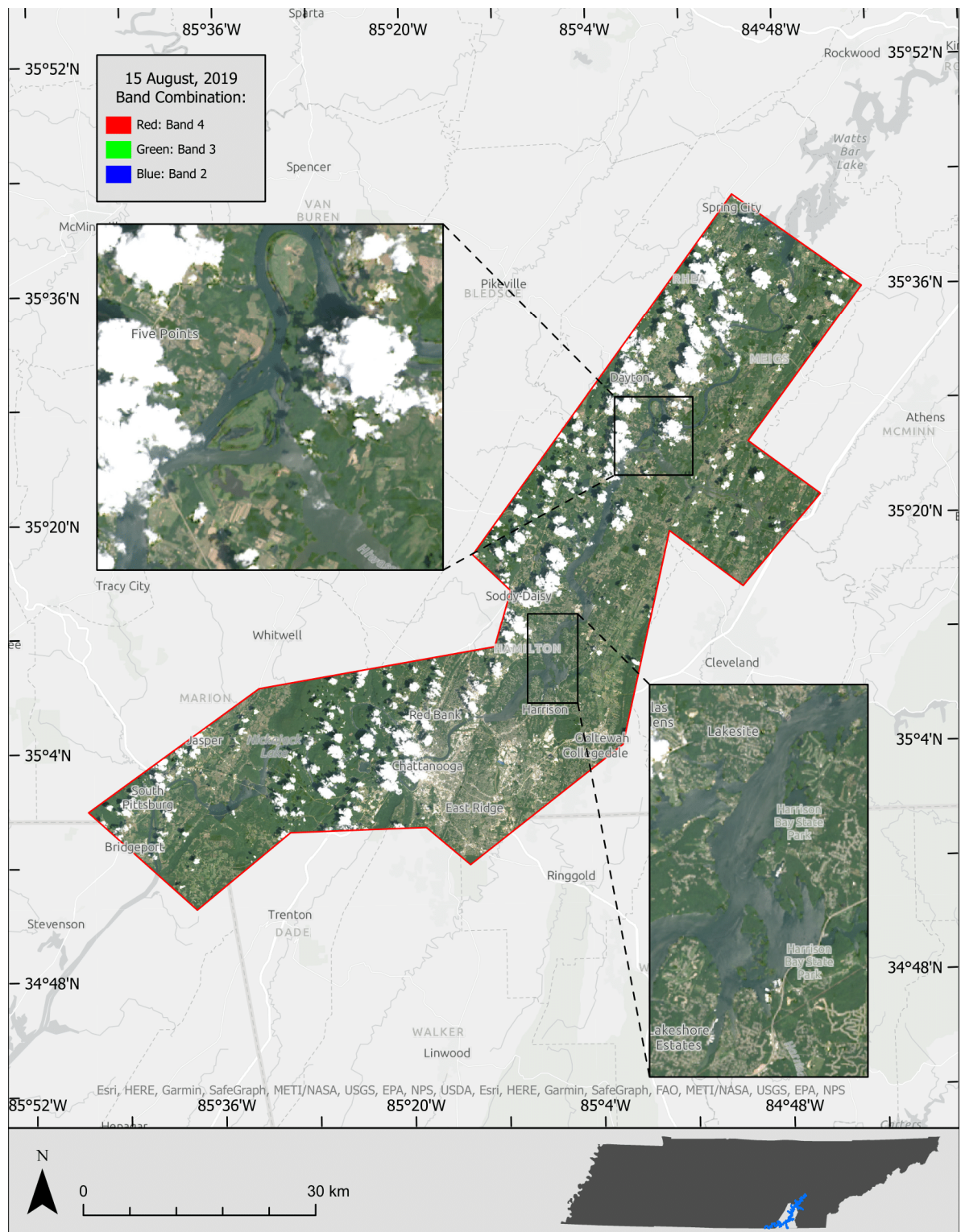


**Figure S1.** One of three Landsat 8 OLI images acquired over the study site on 2 December 2018. The image is subset to the study site extent displayed in true color. The inset regions represent areas of high turbidity variability due to the convergence of lakes and minor streams with the Tennessee River.



**Figure S2.** One of three Landsat 8 OLI images acquired over the study site on 13 February 2019. The image is subset to the study site extent displayed in true color. The inset regions represent areas of high turbidity variability due to the convergence of lakes and minor streams with the Tennessee River.





**Figure S3.** One of three Landsat 8 OLI images acquired over the study site on 15 August 2019. The image is subset to study site extent displayed in true color. The inset regions represent areas of high turbidity variability due to the convergence of lakes and minor streams with the Tennessee River.

**Table S1.** Model training data for 2 December 2018 image acquisition.

Sample ID	Turbidity (NTU)	Surface Reflectance (%) (Landsat 8 OLI)						
		Band 1	Band 2	Band 3	Band 4	Band 5	Band 6	Band 7
S01	3.40	1.97	2.76	4.54	3.04	2.00	1.74	1.24
S02	4.60	2.03	3.00	4.79	3.25	2.12	1.77	1.30
S03	4.40	1.78	2.75	4.75	3.67	2.96	2.11	1.59
S04	4.90	1.86	2.74	4.51	3.03	1.51	1.27	0.89
S05	2.70	1.50	2.05	3.40	2.91	4.46	4.04	2.46
S06	2.90	1.62	2.60	4.24	2.68	1.71	1.49	1.05
S07	3.20	1.56	2.38	4.06	2.56	1.58	1.37	1.01
S09	5.90	1.83	2.67	4.56	3.06	1.48	1.20	0.98
S10	3.80	2.84	3.77	5.56	4.83	7.21	7.67	5.06
S11	4.20	1.86	2.78	4.66	3.21	2.20	1.97	1.42
S12	16.20	2.04	2.97	5.32	4.37	2.31	1.88	1.33
S14	4.00	1.59	2.49	4.36	2.88	1.71	1.42	1.10
S18	17.00	3.32	4.79	9.48	7.94	2.61	1.87	1.33
S19	18.80	3.27	4.75	9.09	7.51	2.56	1.79	1.30
S20	36.80	3.47	5.08	9.95	9.54	3.19	1.48	1.03
S21	8.80	3.28	4.68	8.83	7.02	2.29	1.66	1.24
S22	3.70	2.09	3.24	5.17	3.26	1.93	1.66	1.26
S24	3.80	1.67	2.59	4.39	2.84	1.55	1.28	1.00
S26	2.30	1.29	1.97	3.13	2.22	1.60	1.43	1.05
S27	3.00	1.56	2.31	3.91	2.50	1.62	1.40	1.02
S28	3.20	1.53	2.30	3.72	2.82	2.24	2.12	1.48
S31	4.00	1.53	2.47	4.25	2.74	1.48	1.37	0.98
S32	2.90	1.50	2.45	4.00	2.43	1.62	1.33	1.04
S33	2.70	1.44	2.19	3.51	2.33	1.68	1.57	1.24
S35	3.70	1.57	2.54	4.10	2.58	1.54	1.36	1.04

**Table S2.** Model training data for 13 February 2019 image acquisition.

Sample ID	Turbidity (NTU)	Surface Reflectance (%) (Landsat 8 OLI)						
		Band 1	Band 2	Band 3	Band 4	Band 5	Band 6	Band 7
S01	15.65	4.41	5.34	8.93	7.22	1.16	0.33	0.24
S02	18.84	4.29	5.19	8.40	6.40	1.02	0.27	0.21
S03	4.70	3.10	3.53	4.85	2.77	0.71	0.38	0.30
S04	5.14	3.22	3.62	5.13	3.16	0.86	0.55	0.33
S06	9.12	3.92	4.66	6.81	4.33	0.96	0.61	0.44
S08	12.72	3.91	4.85	7.39	5.08	0.91	0.36	0.24
S09	12.82	4.03	5.06	7.63	5.54	0.98	0.43	0.32
S11	5.32	3.99	4.88	7.37	4.93	0.82	0.36	0.22
S12	5.06	3.23	3.70	5.02	2.67	0.62	0.29	0.21
S13	4.76	3.34	3.86	5.50	3.13	0.64	0.26	0.19
S14	5.42	3.34	3.91	5.48	3.13	0.61	0.27	0.15
S15	5.40	3.31	3.76	5.16	2.83	0.59	0.28	0.19
S16	7.32	3.88	4.71	7.31	5.08	0.83	0.27	0.17
S17	5.26	4.31	5.23	8.52	6.48	1.00	0.25	0.17
S18	12.68	4.72	5.83	9.87	8.88	1.38	0.25	0.20
S19	44.38	4.69	5.95	10.11	9.52	1.54	0.30	0.19
S21	69.40	5.00	6.32	11.26	12.72	2.66	0.47	0.32
S22	78.78	5.05	6.45	11.66	13.82	3.23	0.77	0.52
S23	90.22	5.22	6.51	11.44	13.60	3.29	0.69	0.52
S24	81.66	5.58	6.78	11.26	13.02	3.96	1.69	1.26
S25	71.98	5.49	6.48	10.92	12.18	3.71	2.11	1.55
S28	87.06	5.86	7.21	11.84	14.65	4.76	1.09	0.80
S29	107.02	5.60	7.04	11.95	15.07	4.57	0.93	0.64
S30	85.86	5.17	6.41	11.38	14.10	3.87	0.80	0.59
S31	75.06	5.73	6.92	11.12	13.43	4.40	1.50	1.29
S32	65.06	5.72	6.87	11.24	13.88	4.87	1.88	1.40
S34	40.84	7.95	8.64	12.30	12.99	6.73	4.84	3.82
S36	90.67	6.28	7.48	12.02	14.62	5.41	2.48	2.01
S37	74.02	6.03	7.18	11.84	14.01	4.85	2.40	1.82
S38	71.08	7.25	8.16	12.53	14.26	6.28	4.28	3.41
S39	93.60	5.88	7.18	11.52	13.85	4.33	1.15	0.89
S40	64.64	5.61	6.83	11.74	13.58	3.91	1.10	0.90
S41	61.60	4.96	6.35	11.02	11.71	2.66	0.78	0.54