

Supplementary Material

Table S1. Confusion matrix of the model classifier.

	Water	Developed	Barren	Forest	Shrubland	Herbaceous	Cultivate	Water	Total	User's Accuracy (%)
Water	4311	254	53	54	83	76	206	189	5226	82.5
Developed	127	10,245	22	487	1081	5485	5549	325	23,321	43.9
Barren	65	87	1404	14	227	235	93	12	2137	65.7
Forest	41	232	1	70,677	4239	211	73	514	759,88	93.0
Shrubland	86	548	385	3729	52,513	7963	549	1565	67,338	78.0
Herbaceous	192	3234	886	917	26,931	279,259	24,750	1501	337,670	82.7
Cultivated	88	2932	39	24	303	20,318	92,054	2706	118,464	77.7
Water	247	537	6	950	1731	1173	1963	7238	13,845	52.3
Total	5157	18,069	2796	76,852	87,108	314,720	125,237	14,050	643,989	
Produce's Accuracy (%)	83.6	56.7	50.2	92.0	60.3	88.7	73.5	51.5		

$$\text{Classification Accuracy} = \frac{\text{total number of correction classifications}}{\text{total number of classifications}} \quad (\text{S1})$$

Table S2. Statistical evaluations of accuracy of classification outputs for the two study site sites (i.e., the 20-mile buffers around the study communities) compared to the National Land Cover Database (NLCD) classifications.

Year	Weld Site	Larimer Site
2001	0.889	0.745
2004	0.900	0.742
2006	0.877	0.723
2008	0.871	0.748
2011	0.913	0.78
2013	0.886	0.742
2016	0.904	0.75
Overall	0.894	0.747



Figure S1. Confusion matrix of the model classifier.

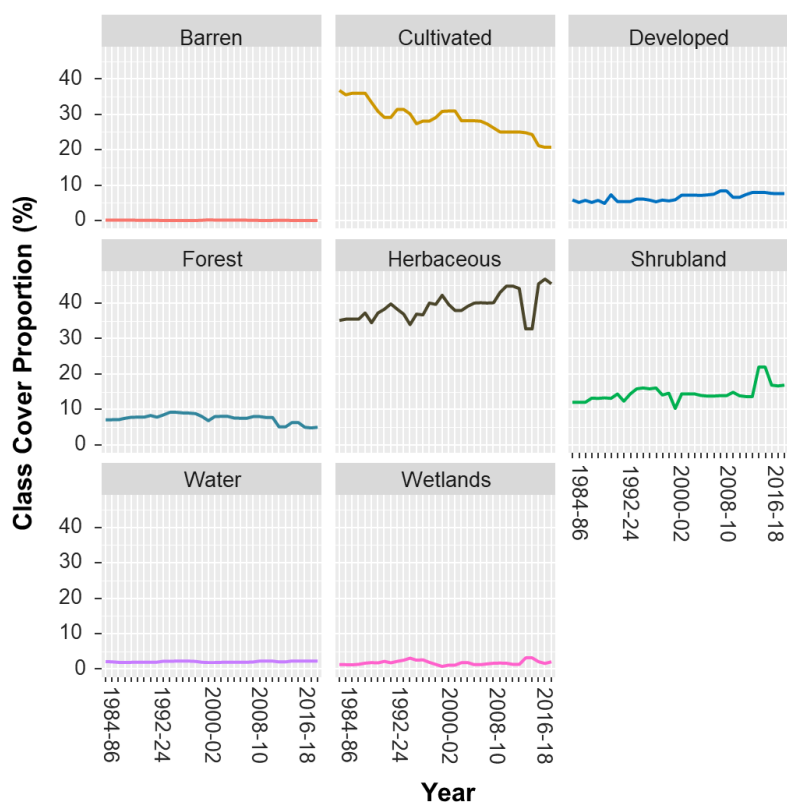


Figure S2. Faceted class cover proportion (%) for barren, cultivated, developed, forest, herbaceous, shrubland, water, and wetlands in the northeastern Larimer County, Colorado study site.

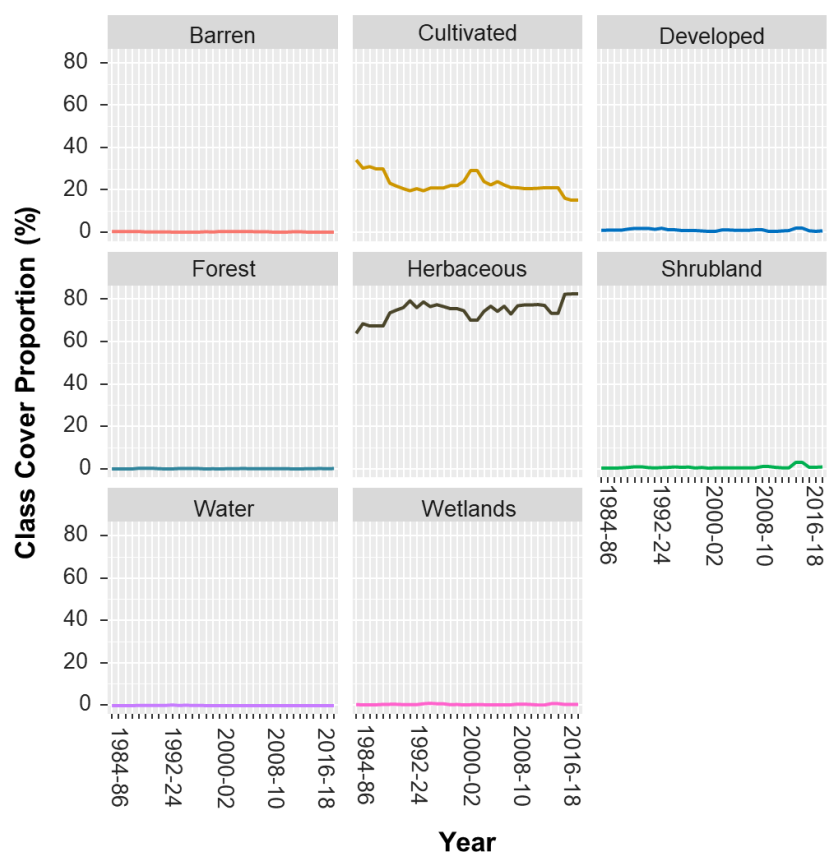


Figure S3. Faceted class cover proportion (%) for barren, cultivated, developed, forest, herbaceous, shrubland, water, and wetlands in northcentral Weld County, Colorado study site.