

Supplementary Materials

Text S1. Nationally significant land

Nationally significant agricultural land is defined as locations having PVR values greater than 0.429. The PVR index is a combined measurement of land productivity (crop yield per acre), versability (ability to support production and management of different crops), and resiliency (ability to maintain ecosystem services). See the AFT report [44] for more technical details.

Table S1. Per state agricultural lands projected to be converted to highly developed urban (UHD) and low-density residential (LDR) land use by 2040. Ag2UHD: agricultural lands converted to highly developed urban; Ag2LDR: agricultural lands converted to low-density residential use; LDR2UHD: low-density residential land converted to highly developed urban; Ag2Urban: agricultural lands converted to either highly developed urban or low-density residential use (Ag2UHD + Ag2LDR). States are ranked by Ag2Urban. Units in thousand acres.

States	Business-as-Usual				Runaway-Sprawl (Ag2Urban)	Better-Built-Cities (Ag2Urban)
	Ag2UHD	Ag2LDR	LDR2UHD	Ag2Urban		
Texas	1,026	1,167	420	2,193	2,770	1,376
North Carolina	222	975	189	1,197	1,678	662
Tennessee	185	830	146	1,015	1,409	565
Georgia	217	581	263	798	1,062	475
California	489	308	137	797	935	522
Florida	308	312	167	620	763	410
Virginia	96	498	97	594	836	329
Missouri	99	469	75	568	794	309
Alabama	131	415	108	545	752	311
Pennsylvania	129	414	103	544	760	309
Ohio	153	371	97	518	697	299
Wisconsin	169	348	102	517	688	305
Mississippi	69	448	48	517	744	275
Michigan	93	397	71	490	703	266
Arkansas	80	406	57	485	669	263
Oklahoma	144	314	62	457	606	270
Kentucky	75	383	62	457	640	251
Indiana	148	306	96	454	605	263
New York	79	374	99	453	643	249
South Carolina	115	322	131	437	587	258
Colorado	201	206	71	406	514	262
Arizona	262	144	50	406	481	270
Minnesota	130	252	93	382	513	216
Illinois	191	173	98	364	449	238
Louisiana	100	210	59	310	400	190
Utah	138	63	29	200	233	135
North Dakota	110	89	23	199	244	126
Kansas	85	111	45	196	249	123

New Mexico	65	122	25	186	245	96
Iowa	108	78	52	186	222	120
Washington	70	112	50	183	229	113
Maryland	45	135	52	180	250	100
Montana	21	150	8	171	249	92
West Virginia	12	148	8	160	231	85
South Dakota	34	123	17	157	215	87
Nevada	92	49	18	141	164	90
New Jersey	58	71	80	128	161	82
Idaho	43	66	23	110	143	62
Nebraska	63	40	21	104	123	64
Oregon	37	64	26	101	134	55
Wyoming	24	59	10	83	106	48
Massachusetts	35	41	46	75	91	52
Delaware	29	38	23	68	89	44
Connecticut	16	40	21	57	74	38
Maine	4	50	6	55	74	30
Vermont	3	38	2	42	62	22
New Hampshire	12	24	12	36	43	23
Rhode Island	4	4	6	8	10	6
Contiguous U.S.	6,020	12,395	3,503	18,415	24,404	10,870

Table S2. States with the greatest proportion of agricultural land projected to be converted to highly developed urban and low-density residential uses by 2040. Units in percent of total agricultural land.

States	Business-as-Usual	Runaway-Sprawl	Better-Built-Cities
New Jersey	16	20	10
Connecticut	16	21	10
Massachusetts	15	18	10
Rhode Island	15	18	10
Delaware	13	17	8
North Carolina	12	16	6
New Hampshire	8	10	5
Tennessee	8	11	5
Maryland	8	11	4
South Carolina	8	10	4
Florida	7	9	5
Virginia	7	10	4
Contiguous U.S.	2.0	2.6	1.1

Table S3. Modeling assumptions for the Business-as-Usual (BAU), Runaway-Sprawl, and Better-Built-Cities scenarios.

Scenario	Rate of UHD conversion	Rate of LDR conversion	Farmland protection
Business-as-Usual	Historical rate, adjusted for future population growth	Historical rate	No new farmland protection
Runaway-Sprawl	Same as BAU	50% more than BAU	No new farmland protection
Better-Built-Cities	25% less than BAU	50% less than BAU	No new farmland protection