Figure S1. Inequities in damages to climate because of loss of land for potential soil carbon (C) sequestration from developments between 2001 and 2016 in the contiguous United States of America (USA).
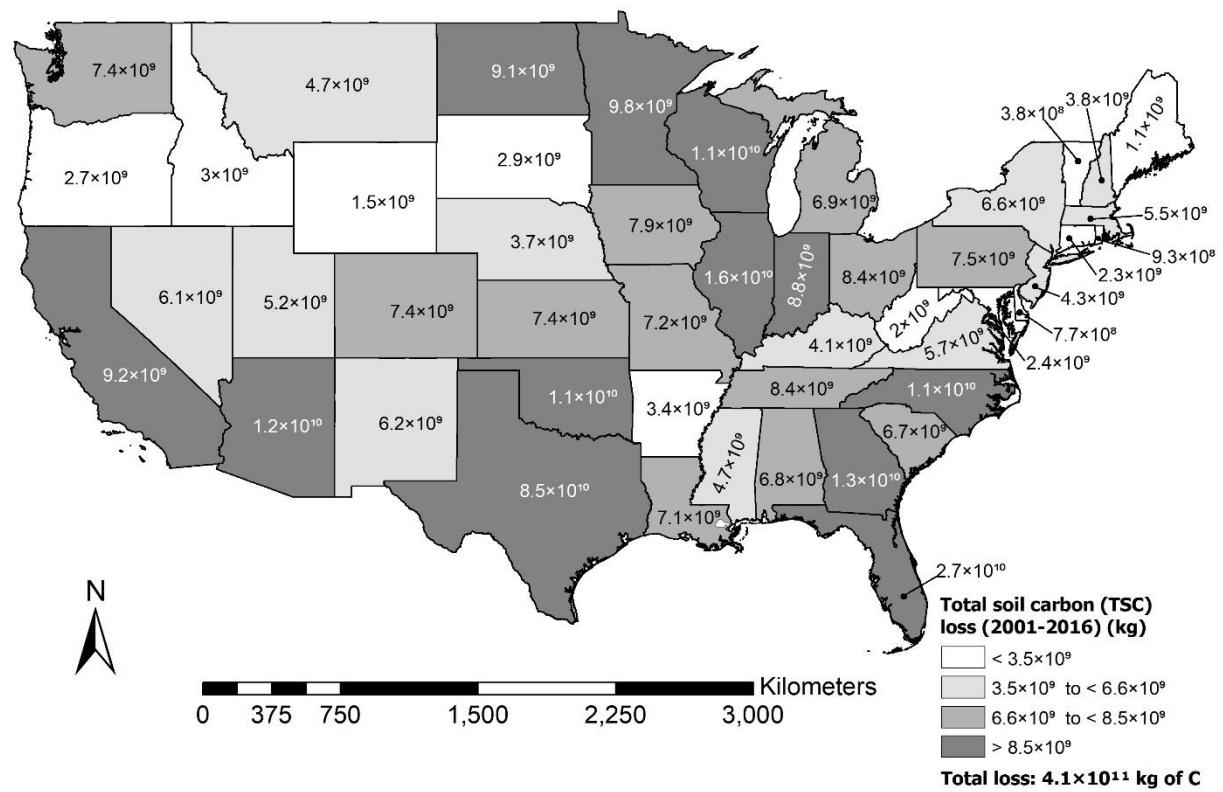
Figure S2. Inequities in damages to climate because of soil carbon (C) loss with associated emissions from developments between 2001 and 2016 in the contiguous United States of America (USA).
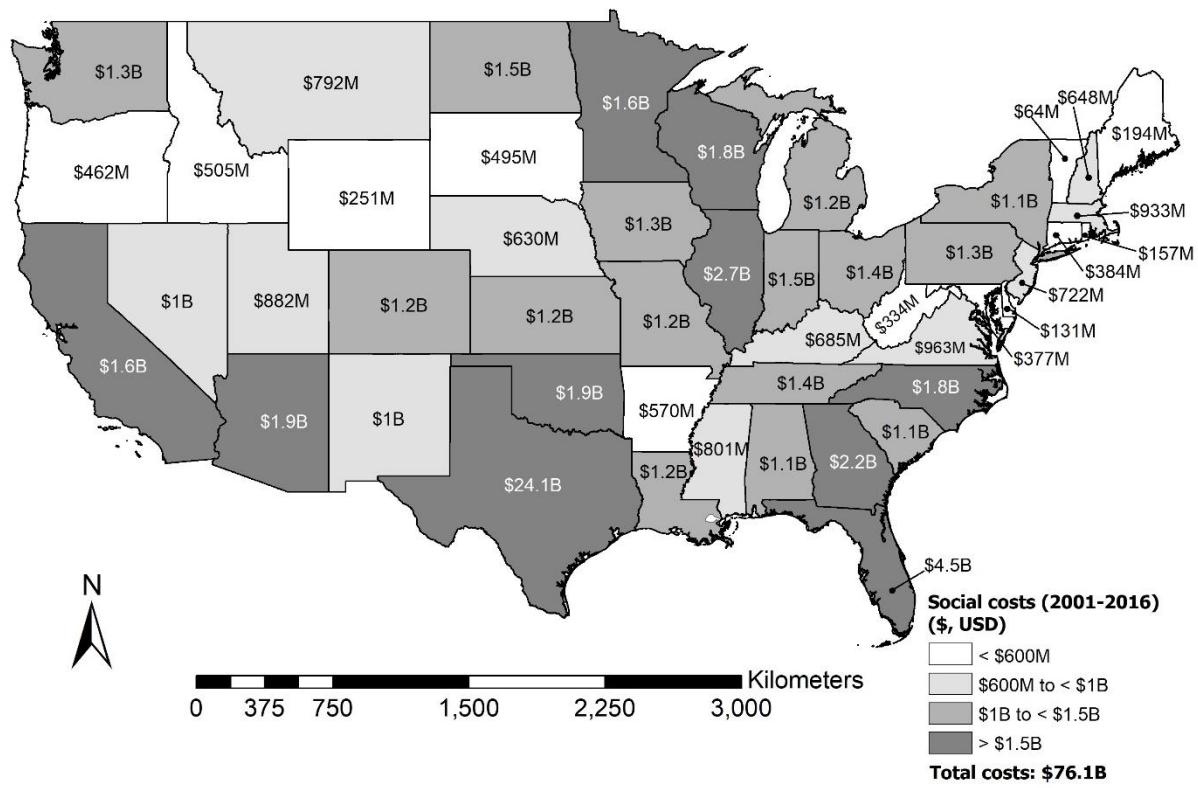
Figure S3. Damage to climate can be measured as "realized" social costs of soil carbon (C) (SC-CO₂) from developments between 2001 and 2016 in the contiguous United States of America (USA) using an avoided social cost of carbon (SC-CO₂) value of $46 per CO₂ metric ton, applicable until 2025 (2007 U.S. dollars, with an average discount rate of 3% [19]). The map shows inequities in SC-CO₂ distribution. Note: M = million = 10^6, B = billion = 10^9.

Table S1. Soil diversity (pedodiversity) is represented by taxonomic diversity at the soil order level in the contiguous United States of America (USA).

Stocks		Area (2016)	
Soil Order	**General Characteristics and Constraints**	**(km²)**	**(%)**
	Slightly Weathered	**1,857,740.0**	**28.4**
Entisols	Embryonic soils with an ochric epipedon	820,179.8	13.4
Inceptisols	Young soils with an ochric or umbric epipedon	767,051.7	12.5
Histosols	Organic soils with ≥ 20% organic carbon	97,224.9	1.6
Andisols	Volcanic soils	57,761.2	0.9
	Moderately Weathered	**3,436,342.0**	**56.2**
Aridisols	Dry soils. Common in desert areas	53,8450.4	8.8
Vertisols	Soils with swelling clays	145,189.9	2.4
Alfisols	Clay-enriched B horizon with B.S. ≥ 35%	1,053,727.4	17.2
Mollisols	Carbon-enriched soils with B.S. ≥ 50%	1,698,974.9	27.8
	Strongly Weathered	**942,348.4**	**15.4**
Spodosols	Coarse-textured soils with albic and spodic horizons	207,924.4	3.4
Ultisols	Highly leached soils with B.S. < 35%	734,424.0	12.0
Total		**6,120,908.6**	**100.0**

Note: B.S. = base saturation. Entisols, Inceptisols, Andisols, Aridisols, Vertisols, Alfisols, Mollisols, Spodosols, and Ultisols are mineral soils. Histosols are mostly organic soils.

Table S2. An overview of the accounting framework used by this study for monitoring the realization of the United Nations (UN) Sustainable Development Goals (SDGs) in the contiguous United States of America (USA) (adapted from Groshans et al. 2019 [16]).

OWNERSHIP (e.g., government, private, foreign, shared, single, etc.)					
Time (e.g., information disclosure, etc.)	**STOCKS / SOURCE ATTRIBUTION**		**FLOWS**		**VALUE**
	Biophysical Accounts (Science-Based)	**Administrative Accounts (Boundary-Based)**	**Monetary Account(s)**	**Benefit(s)/ Damages**	**Total Value**
	Soil extent:	Administrative extent:	Ecosystem good(s) and service(s):	Sector:	Types of value:
	Composite (total) stock: Total soil carbon (TSC) = Soil organic carbon (SOC) + Soil inorganic carbon (SIC)				
Past (e.g., post-development disclosures) **Current** (e.g., status) **Future** (e.g., pre-development disclosures)	- Soil orders (Entisols, Inceptisols, Histosols, Andisols, Aridisols, Vertisols, Alfisols, Mollisols, Spodosols, Ultisols)	- Country (Contiguous USA); - States (48 states)	- Regulation (e.g., carbon sequestration); - Provisioning (e.g., food production)	Environment: - Carbon gain (sequestration); - Carbon loss	"Avoided" or "realized" social cost of carbon (SC-CO_2) emissions: - $46 per metric ton of CO_2 applicable for the year 2025 (2007 U.S. dollars with an average discount rate of 3% [19])
			Conflicts of Interest (COI)		
United Nations (UN) Sustainable Development Goals (SDGs)					
Loss and Damage (L&D)					
Liability (Responsibility)					

Table S3. Area-normalized content (kg m^{-2}) and monetary values ($ m^{-2}) of soil organic carbon (SOC), soil inorganic carbon (SIC), and total soil carbon (TSC = SOC + SIC) by soil order using data developed by Guo et al. (2006) [18] for the upper 2-m of soil and an avoided social cost of carbon (SC-CO$_2$) of $46 per metric ton of CO$_2$, applicable for 2025 (2007 U.S. dollars with an average discount rate of 3% [19]).

Soil Order	SOC Content (kg m^{-2}) SOC Value ($ m^{-2})	SIC Content (kg m^{-2}) SIC Value ($ m^{-2})	TSC Content (kg m^{-2}) TSC Value ($ m^{-2})
	Minimum—Midpoint—Maximum Values		
Entisols	1.8—8.0—15.8	1.9—4.8—8.4	3.7—12.8—24.2
	0.30—1.35—2.66	0.32—0.82—1.42	0.62—2.17—4.08
Inceptisols	2.8—8.9—17.4	2.5—5.1—8.4	5.3—14.0—25.8
	0.47—1.50—2.93	0.42—0.86—1.42	0.89—2.36—4.35
Histosols	63.9—140.1—243.9	0.6—2.4—5.0	64.5—142.5—248.9
	10.78—23.62—41.14	0.10—0.41—0.84	10.88—24.03—41.98
Andisols	4.8—10.7—18.7	0.0—0.0—0.0	4.8—10.7—18.7
	0.81—1.80—3.15	0.00—0.00—0.00	0.81—1.80—3.15
Aridisols	1.2—4.0—7.6	7.0—15.9—27.3	8.2—19.9—34.9
	0.20—0.67—1.28	1.18—2.68—4.60	1.38—3.36—5.89
Vertisols	5.4—14.7—25.5	10.3—23.2—38.3	15.7—37.9—63.8
	0.91—2.48—4.30	1.74—3.91—6.46	2.65—6.39—10.76
Alfisols	2.3—7.5—14.1	1.3—4.3—8.1	3.6—11.8—22.2
	0.39—1.27—2.38	0.22—0.72—1.37	0.61—1.99—3.74
Mollisols	5.9–13.5–22.8	4.9–11.5–19.7	10.8–25.0–42.5
	1.00—2.28—3.85	0.83—1.93—3.32	1.82—4.21—7.17
Spodosols	2.9—12.3—25.5	0.2—0.6—1.1	3.1—12.9—26.6
	0.49—2.07—4.30	0.03—0.10—0.19	0.52—2.17—4.49
Ultisols	1.9—7.1—13.9	0.0—0.0—0.0	1.9—7.1—13.9
	0.32—1.20—2.34	0.00—0.00—0.00	0.32—1.20—2.34

Table S4. Distribution of soil carbon regulating ecosystem services in the contiguous United States of America (USA) by soil order in 2016.

Soil Order	Soil Organic Carbon (SOC) (kg), (SC-CO$_2$, $, USD)			Soil Inorganic Carbon (SIC) (kg), (SC-CO$_2$, $, USD)			Total Soil Carbon (TSC) (kg), (SC-CO$_2$, $, USD)		
Area (km²)	**Minimum**	**Midpoint**	**Maximum**	**Minimum**	**Midpoint**	**Maximum**	**Minimum**	**Midpoint**	**Maximum**
Entisols	1.5×10^{12}	6.6×10^{12}	1.3×10^{13}	1.6×10^{12}	3.9×10^{12}	6.9×10^{12}	3.0×10^{12}	1.50×10^{13}	2.0×10^{13}
820,179.8	$246.1B	$1.1T	$2.2T	$262.5B	$672.5B	$1.2T	$508.5B	$1.8T	$3.3T
Inceptisols	2.1×10^{12}	6.8×10^{12}	1.3×10^{13}	1.9×10^{12}	3.9×10^{12}	6.4×10^{12}	4.1×10^{12}	1.1×10^{13}	2.0×10^{12}
767,051.7	$360.5B	$1.2T	$2.2T	$322.2B	$659.7B	$1.1T	$682.7B	$1.8T	$3.3T
Histosols	6.2×10^{12}	1.4×10^{13}	2.4×10^{13}	5.8×10^{10}	2.3×10^{11}	4.9×10^{11}	6.3×10^{12}	1.4×10^{13}	2.4×10^{13}
97,224.9	$1.0T	$2.3T	$4.0T	$9.7B	$39.9B	$81.7B	$1.1T	$2.3T	$4.1T
Andisols	2.8×10^{11}	6.2×10^{11}	1.1×10^{12}	0.0	0.0	0.0	2.8×10^{11}	6.2×10^{11}	1.51×10^{12}
57,761.2	$46.8B	$104.0B	$181.9B	$0.0	$0.0	$0.0	$46.8B	$104.0B	$181.9B
Aridisols	6.5×10^{11}	2.2×10^{12}	4.1×10^{12}	3.8×10^{12}	8.6×10^{12}	1.5×10^{13}	4.4×10^{12}	1.1×10^{13}	1.9×10^{13}
538,450.4	$107.7B	$360.8B	$689.2B	$635.4B	$1.4T	$2.5T	$743.1B	$1.8T	$3.2T
Vertisols	7.8×10^{11}	2.1×10^{12}	3.7×10^{12}	1.5×10^{12}	3.4×10^{12}	5.6×10^{12}	2.3×10^{12}	5.5×10^{12}	9.3×10^{12}
145,189.9	$132.1B	$360.1B	$624.3B	$252.6B	$567.7B	$937.9B	$384.8B	$927.8B	$1.6T
Alfisols	2.4×10^{12}	7.9×10^{12}	1.5×10^{13}	1.4×10^{12}	4.5×10^{12}	8.5×10^{12}	3.8×10^{12}	1.2×10^{13}	2.3×10^{13}
1,053,727.4	$411.0B	$1.3T	$2.5T	$231.8B	$758.7B	$1.4T	$642.8B	$2.1T	$3.9T
Mollisols	1.0×10^{13}	2.3×10^{13}	3.9×10^{13}	8.3×10^{12}	2.0×10^{13}	3.3×10^{13}	1.8×10^{13}	4.2×10^{13}	7.2×10^{13}
1,698,974.9	$1.7T	$3.9T	$6.5T	$1.4T	$3.3T	$5.6T	$3.1T	$7.2T	$12.2T
Spodosols	6.0×10^{11}	2.6×10^{12}	5.3×10^{12}	4.2×10^{10}	1.2×10^{11}	2.3×10^{11}	6.4×10^{11}	2.7×10^{12}	5.5×10^{12}
207,924.4	$101.9B	$430.4B	$894.1B	$6.2B	$20.8B	$39.5B	$108.1B	$451.2B	$933.6B
Ultisols	1.4×10^{12}	5.2×10^{12}	1.0×10^{13}	0.0	0.0	0.0	1.4×10^{12}	5.2×10^{12}	1.0×10^{13}
734,424.0	$235.0B	$881.3B	$1.7T	$0.0	$0.0	$0.0	$235.0B	$881.3B	$1.7T
2016 Total	$\mathbf{2.6 \times 10^{13}}$	$\mathbf{7.1 \times 10^{13}}$	$\mathbf{1.3 \times 10^{14}}$	$\mathbf{1.9 \times 10^{13}}$	$\mathbf{4.4 \times 10^{13}}$	$\mathbf{7.6 \times 10^{13}}$	$\mathbf{4.5 \times 10^{13}}$	$\mathbf{1.1 \times 10^{14}}$	$\mathbf{2.0 \times 10^{14}}$
6,120,908.6	**$4.4T**	**$11.9T**	**$21.6T**	**$3.1T**	**$7.4T**	**$12.9T**	**$7.5T**	**$19.3T**	**$34.5T**

Table S5. Total soil carbon (C) and associated social costs of C by state in the contiguous United States of America (USA) for 2016.

State (Region)	Land Area (km²)	Minimum TSC Loss (kg)	Midpoint TSC Loss (kg)	Maximum TSC Loss (kg)	Minimum SC-CO$_2$ ($, USD)	Midpoint SC-CO$_2$ ($, USD)	Maximum SC-CO$_2$ ($, USD)
Connecticut (CT)	12,187.5	7.7×10^{10}	2.0×10^{11}	3.7×10^{11}	$13.0B	$34.1B	$62.3B
Delaware (DE)	4028.1	1.3×10^{10}	4.1×10^{10}	7.7×10^{10}	$2.1B	$6.9B	$13.0B
Massachusetts (MA)	17,316.5	1.4×10^{11}	3.5×10^{11}	6.5×10^{11}	$22.7B	$59.8B	$101.6B
Maryland (MD)	22,691.2	8.0×10^{10}	2.5×10^{11}	4.6×10^{11}	$13.4B	$41.4B	$78.0B
Maine (ME)	76,374.8	6.4×10^{11}	1.8×10^{12}	3.3×10^{12}	$107.2B	$295.9B	$556.3B
New Hampshire (NH)	18,869.5	1.6×10^{11}	4.3×10^{11}	8.1×10^{11}	$26.9B	$72.9B	$136.1B
New Jersey (NJ)	17,375.0	9.4×10^{10}	2.7×10^{11}	4.9×10^{11}	$15.9B	$45.0B	$83.4B
New York (NY)	120,649.8	7.5×10^{11}	2.1×10^{12}	3.8×10^{12}	$127.0B	$348.8B	$647.5B
Pennsylvania (PA)	109,568.2	4.2×10^{11}	1.2×10^{12}	2.3×10^{12}	$70.2B	$209.8B	$393.2B
Rhode Island (RI)	2650.7	3.3×10^{10}	8.0×10^{10}	1.4×10^{11}	$5.6B	$13.4B	$24.0B
Vermont (VT)	23,155.2	1.3×10^{11}	3.9×10^{11}	7.4×10^{11}	$21.8B	$65.3B	$125.1B
West Virginia (WV)	61,630.9	2.3×10^{11}	6.9×10^{11}	1.3×10^{12}	$37.9B	$115.9B	$217.8B
(East)	**486,497.4**	**2.8×10^{12}**	**7.8×10^{12}**	**1.5×10^{13}**	**$463.9B**	**$1.3T**	**$2.4T**
Iowa (IA)	142,800.9	1.2×10^{12}	2.9×10^{12}	5.0×10^{12}	$197.9B	$487.9B	$850.7B
Illinois (IL)	124,103.1	8.9×10^{11}	2.3×10^{12}	4.1×10^{12}	$149.9B	$386.9B	$684.7B
Indiana (IN)	82,791.3	5.9×10^{11}	1.5×10^{12}	2.8×10^{12}	$100.1B	$261.2B	$467.3B
Michigan (MI)	143,913.1	1.4×10^{12}	3.7×10^{12}	6.8×10^{12}	$239.9B	$625.2B	$1.1T
Minnesota (MN)	165,505.4	2.6×10^{12}	6.0×10^{12}	1.1×10^{13}	$435.1B	$1.0T	$1.8T
Missouri (MO)	171,155.5	8.9×10^{11}	2.5×10^{12}	4.5×10^{12}	$149.9B	$419.3B	$758.0B
Ohio (OH)	80,089.4	4.1×10^{11}	1.2×10^{12}	2.1×10^{12}	$69.0B	$195.2B	$355.6B
Wisconsin (WI)	120,559.1	1.3×10^{12}	3.3×10^{12}	5.9×10^{12}	$216.0B	$549.0B	$990.2B
(Midwest)	**1,030,917.8**	**9.2×10^{12}**	**2.3×10^{13}**	**4.2×10^{13}**	**$1.6T**	**$3.9T**	**$7.0T**
Arkansas (AR)	95,870.2	3.6×10^{11}	1.1×10^{12}	2.0×10^{12}	$60.7B	$185.0B	$342.6B
Louisiana (LA)	73,743.3	8.3×10^{11}	2.1×10^{12}	3.7×10^{12}	$140.7B	$347.4B	$616.6B
Oklahoma (OK)	169,478.5	1.2×10^{12}	3.1×10^{12}	5.5×10^{12}	$207.7B	$529.5B	$931.9B
Texas (TX)	554,287.9	4.3×10^{12}	1.1×10^{13}	1.9×10^{13}	$720.8B	$1.8T	$3.2T
(South Central)	**893,379.9**	**6.7×10^{12}**	**1.7×10^{13}**	**3.0×10^{13}**	**$1.1T**	**$2.9T**	**$5.1T**
Alabama (AL)	128,955.7	5.0×10^{11}	1.5×10^{12}	2.8×10^{12}	$84.3B	$254.8B	$474.3B
Florida (FL)	127,954.3	1.2×10^{12}	3.1×10^{12}	5.6×10^{12}	$196.4B	$514.9B	$939.9B
Georgia (GA)	146,565.1	4.5×10^{11}	1.4×10^{12}	2.8×10^{12}	$75.5B	$244.2B	$464.6B
Kentucky (KY)	94,589.6	3.7×10^{11}	1.1×10^{12}	2.1×10^{12}	$61.7B	$187.4B	$349.9B
Mississippi (MS)	110,009.8	4.2×10^{11}	1.3×10^{12}	2.5×10^{12}	$71.4B	$221.3B	$414.5B
North Carolina (NC)	121,473.1	6.1×10^{11}	1.7×10^{12}	3.1×10^{12}	$102.5B	$286.4B	$530.2B
South Carolina (SC)	76,271.4	2.3×10^{11}	7.4×10^{11}	1.4×10^{12}	$38.0B	$124.4B	$236.6B
Tennessee (TN)	100,658.9	3.5×10^{11}	1.1×10^{12}	2.0×10^{12}	$59.3B	$183.6B	$344.2B
Virginia (VA)	96,823.4	3.0×10^{11}	9.4×10^{11}	1.8×10^{12}	$49.9B	$159.4B	$302.2B
(Southeast)	**1,003,301.3**	**4.4×10^{12}**	**1.3×10^{13}**	**2.4×10^{13}**	**$739.0B**	**$2.2T**	**$4.1T**
Colorado (CO)	171,822.3	1.3×10^{12}	3.2×10^{12}	5.7×10^{12}	$213.4B	$546.9B	$965.4B
Kansas (KS)	205,150.7	2.1×10^{12}	4.9×10^{12}	8.4×10^{12}	$349.9B	$830.9B	$1.4T
Montana (MT)	323,266.0	2.3×10^{12}	6.0×10^{12}	1.1×10^{13}	$390.4B	$1.0T	$1.8T
North Dakota (ND)	173,521.7	1.8×10^{12}	4.2×10^{12}	7.2×10^{12}	$301.4B	$709.3B	$1.2T
Nebraska (NE)	196,358.9	1.4×10^{12}	3.7×10^{12}	6.6×10^{12}	$244.0B	$632.1B	$1.1T
South Dakota (SD)	188,137.8	1.8×10^{12}	4.4×10^{12}	7.5×10^{12}	$304.4B	$738.1B	$1.3T
Wyoming (WY)	150,210.1	1.0×10^{12}	2.6×10^{12}	4.7×10^{12}	$169.0B	$444.4B	$792.1B
(Northern Plains)	**1,408,467.5**	**1.2×10^{13}**	**2.9×10^{13}**	**5.1×10^{13}**	**$2.0T**	**$4.9T**	**$8.6T**
Arizona (AZ)	132,140.5	9.4×10^{11}	2.4×10^{12}	4.3×10^{12}	$158.5B	$411.2B	$728.5B
California (CA)	162,868.8	1.1×10^{12}	2.9×10^{12}	5.1×10^{12}	$182.6B	$481.2B	$858.7B
Idaho (ID)	147,410.2	1.2×10^{12}	3.0×10^{12}	5.2×10^{12}	$207.9B	$500.3B	$871.1B
New Mexico (NM)	254,081.7	1.9×10^{12}	4.8×10^{12}	8.4×10^{12}	$316.3B	$806.3B	$1.4T
Nevada (NV)	230,411.5	1.8×10^{12}	4.4×10^{12}	7.8×10^{12}	$295.9B	$748.9B	$1.3T
Oregon (OR)	155,974.2	1.2×10^{12}	2.9×10^{12}	5.1×10^{12}	$203.2B	$494.6B	$865.4B
Utah (UT)	102,726.2	7.3×10^{11}	1.9×10^{12}	3.4×10^{12}	$123.3B	$319.9B	$566.0B
Washington (WA)	112,731.5	8.9×10^{11}	2.2×10^{12}	3.8×10^{12}	$150.4B	$366.4B	$645.5B
(West)	**1,298,344.6**	**9.7×10^{12}**	**2.4×10^{13}**	**4.3×10^{13}**	**$1.6T**	**$4.1T**	**$7.3T**
Total	**6,120,908.5**	**4.5×10^{13}**	**1.1×10^{14}**	**2.0×10^{14}**	**$7.5T**	**$19.3T**	**$34.4T**

Note: M = million = 10^6, B = billion = 10^9, T = trillion = 10^{12}.

Table S6. Developed land, potential for soil carbon (C) loss, and realized social costs of C by state in the contiguous United States of America (USA) for all developments prior and through 2016. Because some of the land development would have preceded the establishment of soil databases, the calculated results underestimate true values.

State (Region)	Developed Area (km²)	Minimum TSC Loss (kg)	Midpoint TSC Loss (kg)	Maximum TSC Loss (kg)	Minimum SC-CO₂ ($, USD)	Midpoint SC-CO₂ ($, USD)	Maximum SC-CO₂ ($, USD)
Connecticut (CT)	2752.9	1.4×10^{10}	4.0×10^{10}	7.3×10^{10}	$2.4B	$6.7B	$12.3B
Delaware (DE)	643.3	1.8×10^{9}	6.1×10^{9}	1.2×10^{10}	$302.4M	$1.0B	$2.0B
Massachusetts (MA)	4179.3	2.5×10^{10}	6.8×10^{10}	1.3×10^{11}	$4.1B	$11.5B	$21.1B
Maryland (MD)	3803.6	1.0×10^{10}	3.5×10^{10}	6.6×10^{10}	$1.7B	$5.9B	$11.2B
Maine (ME)	3402.5	1.9×10^{10}	5.7×10^{10}	1.1×10^{11}	$3.2B	$9.7B	$18.7B
New Hampshire (NH)	1769.0	1.6×10^{10}	4.2×10^{10}	7.8×10^{10}	$2.7B	$7.1B	$13.1B
New Jersey (NJ)	5094.8	2.1×10^{10}	6.3×10^{10}	1.2×10^{11}	$3.5B	$10.7B	$20.1B
New York (NY)	12,037.6	5.9×10^{10}	1.7×10^{11}	3.1×10^{11}	$9.9B	$28.4B	$52.8B
Pennsylvania (PA)	12,834.1	4.6×10^{10}	1.4×10^{11}	2.7×10^{11}	$7.8B	$24.0B	$45.2B
Rhode Island (RI)	789.3	5.3×10^{9}	1.4×10^{10}	2.5×10^{10}	$896.3M	$2.3B	$4.3B
Vermont (VT)	1396.7	7.4×10^{9}	2.2×10^{10}	4.2×10^{10}	$1.2B	$3.7B	$7.0B
West Virginia (WV)	3686.6	1.3×10^{10}	4.2×10^{10}	7.9×10^{10}	$2.3B	$7.0B	$13.2B
(East)	**52,389.7**	**2.4×10^{11}**	**7.0×10^{11}**	**1.3×10^{12}**	**$40.0B**	**$118.0B**	**$221.0B**
Iowa (IA)	8385.9	6.9×10^{10}	1.7×10^{11}	3.0×10^{11}	$11.7B	$28.8B	$50.2B
Illinois (IL)	13,361.0	9.5×10^{10}	2.5×10^{11}	4.4×10^{11}	$16.0B	$41.8B	$74.1B
Indiana (IN)	8154.0	5.5×10^{10}	1.5×10^{11}	2.6×10^{11}	$9.3B	$24.5B	$43.8B
Michigan (MI)	14,262.3	9.5×10^{10}	2.6×10^{11}	4.9×10^{11}	$16.0B	$44.7B	$82.2B
Minnesota (MN)	8541.2	8.4×10^{10}	2.0×10^{11}	3.6×10^{11}	$14.2B	$34.4B	$60.2B
Missouri (MO)	10,351.0	5.5×10^{10}	1.5×10^{11}	2.8×10^{11}	$9.3B	$25.8B	$46.6B
Ohio (OH)	10,116.3	4.9×10^{10}	1.4×10^{11}	2.6×10^{11}	$8.2B	$23.9B	$43.9B
Wisconsin (WI)	8223.4	5.7×10^{10}	1.6×10^{11}	2.8×10^{11}	$9.7B	$26.2B	$47.6B
(Midwest)	**81,395.1**	**5.6×10^{11}**	**1.5×10^{12}**	**2.7×10^{12}**	**$94.4B**	**$250.3B**	**$448.7B**
Arkansas (AR)	5723.5	1.8×10^{10}	5.7×10^{10}	1.1×10^{11}	$3.0B	$9.6B	$18.1B
Louisiana (LA)	5402.4	3.6×10^{10}	9.8×10^{10}	1.7×10^{11}	$6.1B	$16.5B	$29.5B
Oklahoma (OK)	8743.7	6.8×10^{10}	1.7×10^{11}	3.0×10^{11}	$11.5B	$28.8B	$50.4B
Texas (TX)	29,898.7	2.4×10^{11}	6.1×10^{11}	1.1×10^{12}	$40.2B	$102.4B	$179.1B
(South Central)	**49,768.3**	**3.6×10^{11}**	**9.3×10^{11}**	**1.6×10^{12}**	**$60.7B**	**$157.3B**	**$277.1B**
Alabama (AL)	8845.2	2.8×10^{10}	8.8×10^{10}	1.7×10^{11}	$4.6B	$14.9B	$28.2B
Florida (FL)	20,249.6	9.5×10^{10}	3.0×10^{11}	5.6×10^{11}	$16.0B	$50.3B	$95.3B
Georgia (GA)	13,631.1	3.0×10^{10}	1.1×10^{11}	2.1×10^{11}	$5.1B	$18.3B	$35.6B
Kentucky (KY)	6725.8	2.5×10^{10}	7.8×10^{10}	1.5×10^{11}	$4.2B	$13.1B	$24.5B
Mississippi (MS)	6786.4	2.3×10^{10}	7.3×10^{10}	1.4×10^{11}	$3.8B	$12.4B	$23.4B
North Carolina (NC)	13,132.1	3.7×10^{10}	1.2×10^{11}	2.4×10^{11}	$6.3B	$20.9B	$40.0B
South Carolina (SC)	7893.2	1.9×10^{10}	6.7×10^{10}	1.3×10^{11}	$3.2B	$11.3B	$21.8B
Tennessee (TN)	9504.4	3.2×10^{10}	1.1×10^{11}	1.9×10^{11}	$5.4B	$17.1B	$32.2B
Virginia (VA)	8784.1	2.4×10^{10}	8.0×10^{10}	1.5×10^{11}	$4.0B	$13.5B	$25.8B
(Southeast)	**95,551.9**	**3.1×10^{11}**	**1.0×10^{12}**	**1.9×10^{12}**	**$52.6B**	**$171.9B**	**$326.6B**
Colorado (CO)	4702.3	3.8×10^{10}	9.5×10^{10}	1.7×10^{11}	$6.4B	$15.9B	$27.9B
Kansas (KS)	9615.0	9.9×10^{10}	2.3×10^{11}	4.0×10^{11}	$16.6B	$39.3B	$67.2B
Montana (MT)	3631.5	2.8×10^{10}	7.1×10^{10}	1.2×10^{11}	$4.7B	$11.9B	$20.9B
North Dakota (ND)	6016.4	6.3×10^{10}	1.5×10^{11}	2.5×10^{11}	$10.6B	$25.1B	$42.8B
Nebraska (NE)	5957.7	5.1×10^{10}	1.3×10^{11}	2.2×10^{11}	$8.6B	$21.2B	$36.9B
South Dakota (SD)	4728.8	4.9×10^{10}	1.2×10^{11}	2.0×10^{11}	$8.2B	$19.4B	$33.2B
Wyoming (WY)	1142.2	8.0×10^{9}	2.1×10^{10}	3.7×10^{10}	$1.3B	$3.5B	$6.2B
(Northern Plains)	**35,793.9**	**3.4×10^{11}**	**8.1×10^{11}**	**1.4×10^{12}**	**$56.6B**	**$136.3B**	**$235.2B**
Arizona (AZ)	4432.9	3.0×10^{10}	7.9×10^{10}	1.4×10^{11}	$5.1B	$13.4B	$23.8B
California (CA)	11,786.1	8.0×10^{10}	2.1×10^{11}	3.8×10^{11}	$13.5B	$35.9B	$63.7B
Idaho (ID)	3010.8	2.6×10^{10}	4.1×10^{10}	1.1×10^{11}	$4.3B	$10.4B	$18.2B
New Mexico (NM)	3392.5	2.4×10^{10}	6.3×10^{10}	1.1×10^{11}	$4.1B	$10.6B	$18.8B
Nevada (NV)	2709.0	2.0×10^{10}	5.0×10^{10}	8.9×10^{10}	$3.3B	$8.5B	$15.1B
Oregon (OR)	5824.1	4.0×10^{10}	1.0×10^{11}	1.8×10^{11}	$7.0B	$17.5B	$30.8B
Utah (UT)	2141.5	1.8×10^{10}	4.4×10^{10}	7.7×10^{10}	$3.0B	$7.4B	$13.0B
Washington (WA)	7392.7	7.8×10^{10}	1.9×10^{11}	3.3×10^{11}	$13.2B	$31.6B	$55.8B
(West)	**40,689.6**	**3.2×10^{11}**	**7.8×10^{11}**	**1.4×10^{12}**	**$53.5B**	**$135.3B**	**$239.2B**
Total	**355,588.5**	**2.1×10^{12}**	**5.7×10^{12}**	**1.0×10^{13}**	**$357.9B**	**$969.2B**	**$1.7T**

Note: M = million = 10^6, B = billion = 10^9, T = trillion = 10^{12}.

Table S7. Developed land, potential for soil carbon (C) loss, and realized social costs of C by state in the contiguous United States of America (USA) for all developments between 2001 and 2016.

State (Region)	Developed Area (km²)	Minimum TSC Loss (kg)	Midpoint TSC Loss (kg)	Maximum TSC Loss (kg)	Minimum SC-CO₂ ($ = USD)	Midpoint SC-CO₂ ($, USD)	Maximum SC-CO₂ ($, USD)
Connecticut (CT)	159.1	8.3×10^8	2.3×10^9	4.2×10^9	$139.5M	$384.8M	$709.9M
Delaware (DE)	90.3	2.2×10^8	7.7×10^8	1.5×10^9	$37.8M	$130.8M	$250.8M
Massachusetts (MA)	316.0	2.1×10^9	5.5×10^9	1.0×10^{10}	$348.5M	$932.7M	$1.7B
Maryland (MD)	248.4	6.5×10^8	2.4×10^9	4.3×10^9	$110.3M	$376.7M	$720.4M
Maine (ME)	74.1	3.5×10^8	1.1×10^9	2.2×10^9	$59.1M	$194.4M	$365.5M
New Hampshire (NH)	107.5	1.6×10^9	3.8×10^9	6.9×10^9	$269.6M	$648.0M	$1.1B
New Jersey (NJ)	389.7	1.3×10^9	4.3×10^9	3.4×10^9	$227.2M	$722.2M	$1.4B
New York (NY)	485.2	2.2×10^9	6.6×10^9	1.2×10^{10}	$386.3M	$1.1B	$2.1B
Pennsylvania (PA)	674.8	2.4×10^9	7.5×10^9	1.5×10^{10}	$405.6M	$1.3B	$2.4B
Rhode Island (RI)	40.8	3.7×10^8	9.3×10^8	1.7×10^9	$62.9M	$157.0M	$282.0M
Vermont (VT)	25.3	1.3×10^8	3.8×10^8	7.2×10^8	$21.6M	$64.1M	$121.3M
West Virginia (WV)	173.5	6.3×10^8	2.0×10^9	3.7×10^9	$106.6M	$334.2M	$628.0M
(East)	**2784.7**	**1.1×10^{10}**	**3.8×10^{10}**	**5.9×10^{10}**	**$1.9B**	**$6.3B**	**$10.7B**
Iowa (IA)	395.4	3.2×10^9	7.9×10^9	1.4×10^{10}	$539.4M	$1.3B	$2.3B
Illinois (IL)	721.8	6.5×10^9	1.6×10^{10}	2.8×10^{10}	$1.1B	$2.7B	$4.7B
Indiana (IN)	466.6	3.4×10^9	8.8×10^9	1.6×10^{10}	$577.5M	$1.5B	$2.6B
Michigan (MI)	371.6	2.5×10^9	6.9×10^9	1.3×10^{10}	$429.5M	$1.2B	$2.1B
Minnesota (MN)	414.1	4.0×10^9	9.8×10^9	1.7×10^{10}	$679.1M	$1.6B	$2.9B
Missouri (MO)	462.5	2.6×10^9	7.2×10^9	1.3×10^{10}	$442.0M	$1.2B	$2.2B
Ohio (OH)	577.6	3.0×10^9	8.4×10^9	1.5×10^{10}	$498.4M	$1.4B	$2.6B
Wisconsin (WI)	557.3	3.4×10^9	1.1×10^{10}	1.9×10^{10}	$699.8M	$1.8B	$3.3B
(Midwest)	**3966.9**	**2.9×10^{10}**	**7.6×10^{10}**	**1.3×10^{11}**	**$5.0B**	**$12.7B**	**$22.7B**
Arkansas (AR)	363.2	1.0×10^9	3.4×10^9	6.4×10^9	$172.1M	$570.1M	$1.1B
Louisiana (LA)	397.6	2.6×10^9	7.1×10^9	1.3×10^{10}	$440.1M	$1.2B	$2.1B
Oklahoma (OK)	558.5	4.4×10^9	1.1×10^{10}	1.9×10^{10}	$742.6M	$1.9B	$3.2B
Texas (TX)	3888.7	3.4×10^{10}	8.5×10^{10}	1.5×10^{11}	$5.7B	$24.1B	$24.9B
(South Central)	**5208.0**	**4.2×10^{10}**	**1.1×10^{11}**	**1.9×10^{11}**	**$7.1B**	**$27.8B**	**$31.4B**
Alabama (AL)	674.6	2.1×10^9	6.8×10^9	1.3×10^{10}	$355.7M	$1.1B	$2.2B
Florida (FL)	1676.3	8.7×10^9	2.7×10^{10}	5.0×10^{10}	$1.5B	$4.5B	$8.5B
Georgia (GA)	1604.6	3.6×10^9	1.3×10^{10}	2.5×10^{10}	$603.8M	$2.2B	$4.2B
Kentucky (KY)	339.6	1.3×10^9	4.1×10^9	7.6×10^9	$218.8M	$685.1M	$1.3B
Mississippi (MS)	418.9	1.5×10^9	4.7×10^9	8.9×10^9	$251.8M	$801.2M	$1.5B
North Carolina (NC)	1166.7	3.3×10^9	1.1×10^{10}	2.1×10^{10}	$549.7M	$1.8B	$3.5B
South Carolina (SC)	769.1	1.9×10^9	6.7×10^9	1.3×10^{10}	$315.0M	$1.1B	$2.2B
Tennessee (TN)	745.1	2.7×10^9	8.4×10^9	1.6×10^{10}	$454.4M	$1.4B	$2.6B
Virginia (VA)	614.1	1.7×10^9	5.7×10^9	1.1×10^{10}	$283.7M	$962.9M	$1.8B
(Southeast)	**8009.0**	**2.7×10^{10}**	**8.7×10^{10}**	**1.7×10^{11}**	**$4.5B**	**$14.5B**	**$27.8B**
Colorado (CO)	366.0	3.0×10^9	7.4×10^9	1.3×10^{10}	$500.7M	$1.2B	$2.2B
Kansas (KS)	304.0	3.2×10^9	7.4×10^9	1.3×10^{10}	$533.1M	$1.2B	$2.1B
Montana (MT)	219.2	1.9×10^9	4.7×10^9	8.1×10^9	$325.9M	$792.0M	$1.4B
North Dakota (ND)	362.9	3.8×10^9	9.1×10^9	1.5×10^{10}	641.6M	$1.5B	$2.6B
Nebraska (NE)	183.1	1.5×10^9	3.7×10^9	6.5×10^9	$254.2M	$625.8M	$1.1B
South Dakota (SD)	124.8	1.2×10^9	2.9×10^9	5.0×10^9	$208.5M	$494.6M	$848.8M
Wyoming (WY)	87.5	5.6×10^8	1.5×10^9	2.7×10^9	$94.5M	$251.1M	$448.8M
(Northern Plains)	**1647.5**	**1.5×10^{10}**	**3.7×10^{10}**	**6.3×10^{10}**	**$2.6B**	**$6.1B**	**$10.7B**
Arizona (AZ)	679.2	4.4×10^9	1.2×10^{10}	2.1×10^{10}	$746.0M	$1.9B	$3.6B
California (CA)	549.0	3.3×10^9	9.2×10^9	1.7×10^{10}	$558.5M	$1.6B	$2.8B
Idaho (ID)	150.3	1.2×10^9	3.0×10^9	5.2×10^9	$206.5M	$505.4M	$884.7M
New Mexico (NM)	337.5	2.4×10^9	6.2×10^9	9.7×10^9	$402.6M	$1.0B	$1.9B
Nevada (NV)	332.1	2.4×10^9	6.1×10^9	1.1×10^{10}	$402.8M	$1.0B	$1.8B
Oregon (OR)	136.2	1.1×10^9	2.7×10^9	4.8×10^9	$187.5M	$462.2M	$806.6M
Utah (UT)	242.1	2.2×10^9	5.2×10^9	9.0×10^9	$364.7M	$881.7M	$1.5B
Washington (WA)	249.7	3.1×10^9	7.4×10^9	1.3×10^{10}	$526.6M	$1.3B	$2.2B
(West)	**2676.1**	**2.0×10^{10}**	**5.2×10^{10}**	**9.0×10^{10}**	**$3.4B**	**$8.6B**	**$15.4B**
Total	**24,292.2**	**1.4×10^{11}**	**4.0×10^{11}**	**7.0×10^{11}**	**$24.4B**	**$76.1B**	**$118.7B**

Note: M = million = 10^6, B = billion = 10^9.