

# Climate Change

## APPENDIX 6-A METHANE EMISSIONS AND REDUCTIONS FROM CONTROLLED LANDFILLS

Year	Population [1] 1,000	Generation Rate [2] kg/cap/d	Waste Gg	Fraction landfilled [3] %	Waste Landfilled Gg	CH <sub>4</sub> Emissions Gg	CH <sub>4</sub> Reduction [4] Gg	Equivalent CO <sub>2</sub> Reduction [5] Gg
1994	3,725	0.8	1087.70	55.00	598.24	41.64	37.47	786.94
1995	3,781	0.81	1120.58	57.30	642.09	44.69	40.22	844.63
1996	3,838	0.82	1154.45	59.60	688.05	47.89	43.10	905.09
1997	3,895	0.84	1189.34	61.90	736.20	51.24	46.12	968.43
1998	3,954	0.85	1225.29	64.20	786.63	54.75	49.27	1034.77
1999	4,013	0.86	1262.32	66.50	839.44	58.43	52.58	1104.24
2000	4,073	0.87	1300.47	68.80	894.73	62.27	56.05	1176.96
2001	4,134	0.89	1339.78	71.10	952.58	66.30	59.67	1253.07
2002	4,196	0.90	1380.28	73.40	1013.12	70.51	63.46	1332.70
2003	4,259	0.91	1421.99	75.70	1076.45	74.92	67.43	1416.01
2004	4,323	0.93	1464.97	78.00	1142.68	79.53	71.58	1503.13
2005	4,388	0.94	1509.25	80.00	1207.40	84.04	75.63	1588.27
2006	4,454	0.96	1554.87	80.50	1251.67	87.12	78.40	1646.50
2007	4,520	0.97	1601.87	81.00	1297.51	90.31	81.28	1706.80
2008	4,588	0.99	1650.28	81.50	1344.98	93.61	84.25	1769.24
2009	4,657	1.00	1700.16	82.00	1394.13	97.03	87.33	1833.90
2010	4,727	1.02	1751.55	82.50	1445.03	100.57	90.52	1900.85
2011	4,798	1.03	1804.49	83.00	1497.73	104.24	93.82	1970.17
2012	4,870	1.05	1859.03	83.50	1552.29	108.04	97.24	2041.95
2013	4,943	1.06	1915.22	84.00	1608.79	111.97	100.77	2116.26
2014	5,017	1.08	1973.11	84.50	1667.28	116.04	104.44	2193.20
2015	5,092	1.09	2032.75	85.00	1727.83	120.26	108.23	2272.86
2016	5,169	1.11	2094.18	85.20	1784.25	124.18	111.77	2347.07
2017	5,246	1.13	2157.48	85.40	1842.49	128.24	115.41	2423.68
2018	5,325	1.14	2222.69	85.60	1902.62	132.42	119.18	2502.79
2019	5,405	1.16	2289.87	85.80	1964.71	136.74	123.07	2584.46
2020	5,486	1.18	2359.08	86.00	2028.81	141.21	127.08	2668.78
2021	5,568	1.20	2430.39	86.20	2094.99	145.81	131.23	2755.84
2022	5,652	1.21	2503.85	86.40	2163.32	150.57	135.51	2845.72

2023	5,736	1.23	2579.52	86.60	2233.87	155.48	139.93	2938.52
2024	5,822	1.25	2657.49	86.80	2306.70	160.55	144.49	3034.33
2025	5,910	1.27	2737.81	87.00	2381.90	165.78	149.20	3133.24
2026	5,998	1.29	2820.56	87.20	2459.53	171.18	154.07	3235.37
2027	6,088	1.31	2905.81	87.40	2539.68	176.76	159.09	3340.80
2028	6,180	1.33	2993.64	87.60	2622.43	182.52	164.27	3449.65
2029	6,272	1.35	3084.13	87.80	2707.86	188.47	169.62	3562.03
2030	6,367	1.37	3177.34	88.00	2796.06	194.61	175.15	3678.05
2031	6,462	1.39	3273.38	88.20	2887.12	200.94	180.85	3797.83
2032	6,559	1.41	3372.32	88.40	2981.13	207.49	186.74	3921.49
2033	6,657	1.43	3474.24	88.60	3078.18	214.24	192.82	4049.16
2034	6,757	1.45	3579.25	88.80	3178.38	221.22	199.09	4180.96
2035	6,859	1.47	3687.44	89.00	3281.82	228.41	205.57	4317.04
2036	6,961	1.50	3798.89	89.20	3388.61	235.85	212.26	4457.51
2037	7,066	1.52	3913.71	89.40	3498.86	243.52	219.17	4602.54
2038	7,172	1.54	4032.00	89.60	3612.67	251.44	226.30	4752.26
2039	7,279	1.56	4153.87	89.80	3730.18	259.62	233.66	4906.82
2040	7,389	1.59	4279.42	90.00	3851.48	268.06	241.26	5066.39
<b>Total</b>					<b>92682.51</b>	<b>6450.70</b>	<b>5805.63</b>	<b>121918.27</b>

1. 1.5 percent increase per year
2. percent increase per year
3. Values within base years (2000, 2005, 2015, and 2040) are linearly interpolated
4. 90 percent reduction rate
5.  $GWP\ CH_4 = 21\ GWP\ CO_2$