

Geography and Environment

This section presents a variety of information on the physical environment of the United States, starting with basic area measurement data and ending with climatic data for selected weather stations around the country. The subjects covered between those points are mostly concerned with environmental trends but include related subjects such as land use, water consumption, air pollutant emissions, toxic releases, oil spills, hazardous waste sites, municipal waste and recycling, threatened and endangered wildlife, and the environmental industry.

The information in this section is selected from a wide range of federal agencies that compile the data for various administrative or regulatory purposes, such as the Environmental Protection Agency (EPA), U.S. Geological Survey (USGS), National Oceanic and Atmospheric Administration (NOAA), Natural Resources Conservation Service (NRCS), and General Services Administration (GSA). New information on pollution abatement expenditures may be found in Tables 370 and 371 produced by the U.S. Census Bureau.

Area—For the 2000 census, area measurements were calculated by computer based on the information contained in a single, consistent geographic database, the Topologically Integrated Geographic Encoding & Referencing system (TIGER) database, rather than relying on historical, local, and manually calculated information. Information from the 2000 census may be found in Table 346.

Geography—The USGS conducts investigations, surveys, and research in the fields of geography, geology, topography, geographic information systems, mineralogy, hydrology, and geothermal energy resources as well as natural hazards. The USGS provides United States cartographic

data through the Earth Sciences Information Center, water resources data through the National Water Data Exchange (NAWDEX), and a variety of research and Open-File reports which are announced monthly in *New Publications of the USGS*.

In a joint project with the U.S. Census Bureau, during the 1980s, the USGS provided the basic information on geographic features for input into a national geographic and cartographic database prepared by the Census Bureau, called TIGER database. Since then, using a variety of sources, the Census Bureau has updated these features and their related attributes (names, descriptions, etc.) and inserted current information on the boundaries, names, and codes of legal and statistical geographic entities; very few of these updates added aerial water features. Maps prepared by the Census Bureau using the TIGER database show the names and boundaries of entities and are available on a current basis.

The U.S. Census Bureau uses the Boundary and Annexation Survey to maintain a current inventory of government units and their legal boundaries. The information is available to the public on line. There are also several series of maps for Census 2000: P.L. County Block Maps, Census Tract Outline Maps, and Voting District/State Legislative District Outline Maps. These maps can be obtained online via the American Fact-Finder.

An inventory of the nation's land resources by type of use/cover was conducted by the National Resources Inventory Conservation Service (formerly the Soil Conservation Service) every 5 years beginning in 1977. The most recent survey results, which were published in the 1997 National Resources Inventory, cover

all nonfederal land in Puerto Rico, the Virgin Islands, and the United States except Alaska. Tables 361 and 362 provide results from the survey. Beginning with the release of the 2001 estimates (tentatively scheduled for fall 2003), this program will shift to become an annual release of land use data.

Environment—The principal federal agency responsible for pollution abatement and control activities is the Environmental Protection Agency (EPA). It is responsible for establishing and monitoring national air quality standards, water quality activities, solid and hazardous waste disposal, and control of toxic substances. Many of these series now appear in the Envirofacts portion of the EPA Web site at <<http://www.epa.gov/enviro/>>. In 2003, EPA released a major compilation of environmental indicators, entitled *Draft Report on the Environment: 2003*, found at <<http://www.epa.gov/indicators/>>.

National Ambient Air Quality Standards (NAAQS) for suspended particulate matter, sulfur dioxide, photochemical oxidants, carbon monoxide, and nitrogen dioxide were originally set by the EPA in April 1971. Every 5 years, each of the NAAQS is reviewed and revised to include any additional or new health or welfare data. The standard for photochemical oxidants, now called ozone, was revised in February 1979. Also, a new NAAQS for confining lead was promulgated in October 1978 and for suspended particulate matter in 1987. Table 359 gives some of the health related standards for the six air pollutants having NAAQS. Data gathered from state networks are periodically submitted to EPA's National Aerometric Information Retrieval System (AIRS) for summarization in annual reports on the nationwide status and trends in air quality. For details, see *National Air Quality and Emissions Trends Report*. More current information on emissions may be found on the EPA Web site at <<http://www.epa.gov/ttn/chief/trends>>.

The Toxics Release Inventory (TRI), published by the EPA, is a valuable source of information regarding toxic chemicals that are being used, manufactured, treated, transported, or released into the

environment. Sections 313 of the Emergency Planning and Community Right-To-Know Act (EPCRA) and 6607 of the Pollution Prevention Act (PPA), mandate that a publicly accessible toxic chemical database be developed and maintained by EPA. This database, known as the TRI, contains information concerning waste management activities and the release of toxic chemicals by facilities that manufacture, process, or otherwise use said materials. Data on the release of these chemicals are collected from manufacturing facilities and facilities added in 1998 that have the equivalent of 10 or more full-time employees and meet the established thresholds for manufacturing, processing, or "other use" of listed chemicals. Facilities must report their releases and other waste management quantities. Since 1994 federal facilities have been required to report their data regardless of industry classification. In May 1997, EPA added seven new industry sectors that reported to the TRI for the first time in July 1999 for the 1998 reporting year.

Climate—NOAA, through the National Weather Service and the National Environmental Satellite, Data, and Information Service, is responsible for climate data. NOAA maintains about 11,600 weather stations, of which over 3,000 produce autographic precipitation records, about 600 take hourly readings of a series of weather elements, and the remainder record data once a day. These data are reported monthly in the Climatological Data and Storm Data, published monthly and annually in the Local Climatological Data (published by location for major cities).

The normal climatological temperatures, precipitation, and degree days listed in this publication are derived for comparative purposes and are averages for the 30-year period, 1971-2000. For stations that did not have continuous records for the entire 30 years from the same instrument site, the normals have been adjusted to provide representative values for the current location. The information in all other tables is based on data from the beginning of the record at that location through 2001.

No. 346. Land and Water Area of States and Other Entities: 2000

[One square mile=2.59 square kilometers. Area is calculated from the specific boundary recorded for each entity in the U.S. Census Bureau's geographic TIGER database]

State and other area	Total area		Land area		Water area					
	Sq. mi.	Sq. km.	Sq. mi.	Sq. km.	Total		Inland (sq. mi.)	Coastal (sq. mi.)	Great Lakes (sq. mi.)	Territorial (sq. mi.)
					Sq. mi.	Sq. km.				
Total	3,800,286	9,842,696	3,540,999	9,171,146	259,287	671,550	79,018	42,241	60,251	77,777
United States	3,794,083	9,826,630	3,537,439	9,161,923	256,645	664,707	78,797	42,225	60,251	75,372
Alabama	52,419	135,765	50,744	131,426	1,675	4,338	956	519	-	200
Alaska	663,267	1,717,854	571,951	1,481,347	91,316	236,507	17,243	27,049	-	47,024
Arizona	113,998	295,254	113,635	294,312	364	942	364	-	-	-
Arkansas	53,179	137,732	52,068	134,856	1,110	2,876	1,110	-	-	-
California	163,696	423,970	155,959	403,933	7,736	20,037	2,674	222	-	4,841
Colorado	104,094	269,601	103,718	268,627	376	974	376	-	-	-
Connecticut	5,543	14,357	4,845	12,548	699	1,809	161	538	-	-
Delaware	2,489	6,447	1,954	5,060	536	1,388	72	371	-	93
District of Columbia	68	177	61	159	7	18	7	-	-	-
Florida	65,755	170,304	53,927	139,670	11,828	30,634	4,672	1,311	-	5,845
Georgia	59,425	153,909	57,906	149,976	1,519	3,933	1,016	48	-	455
Hawaii	10,931	28,311	6,423	16,635	4,508	11,677	38	-	-	4,470
Idaho	83,570	216,446	82,747	214,314	823	2,131	823	-	-	-
Illinois	57,914	149,998	55,584	143,961	2,331	6,037	756	-	1,575	-
Indiana	36,418	94,321	35,867	92,895	551	1,427	316	-	235	-
Iowa	56,272	145,743	55,869	144,701	402	1,042	402	-	-	-
Kansas	82,277	213,096	81,815	211,900	462	1,197	462	-	-	-
Kentucky	40,409	104,659	39,728	102,896	681	1,763	681	-	-	-
Louisiana	51,840	134,264	43,562	112,825	8,278	21,440	4,154	1,935	-	2,189
Maine	35,385	91,646	30,862	79,931	4,523	11,715	2,264	613	-	1,647
Maryland	12,407	32,133	9,774	25,314	2,633	6,819	680	1,843	-	110
Massachusetts	10,555	27,336	7,840	20,306	2,715	7,031	423	977	-	1,314
Michigan	96,716	250,494	56,804	147,121	39,912	103,372	1,611	-	38,301	-
Minnesota	86,939	225,171	79,610	206,189	7,329	18,982	4,783	-	2,546	-
Mississippi	48,430	125,434	46,907	121,489	1,523	3,945	785	590	-	148
Missouri	69,704	180,533	68,886	178,414	818	2,120	818	-	-	-
Montana	147,042	380,838	145,552	376,979	1,490	3,859	1,490	-	-	-
Nebraska	77,354	200,345	76,872	199,099	481	1,247	481	-	-	-
Nevada	110,561	286,351	109,826	284,448	735	1,903	735	-	-	-
New Hampshire	9,350	24,216	8,968	23,227	382	989	314	-	-	68
New Jersey	8,721	22,588	7,417	19,211	1,304	3,377	396	401	-	507
New Mexico	121,590	314,915	121,356	314,309	234	606	234	-	-	-
New York	54,556	141,299	47,214	122,283	7,342	19,016	1,895	981	3,988	479
North Carolina	53,819	139,389	48,711	126,161	5,108	13,229	3,960	-	-	1,148
North Dakota	70,700	183,112	68,976	178,647	1,724	4,465	1,724	-	-	-
Ohio	44,825	116,096	40,948	106,056	3,877	10,401	378	-	3,499	-
Oklahoma	69,898	181,036	68,667	177,847	1,231	3,189	1,231	-	-	-
Oregon	98,381	254,805	95,997	248,631	2,384	6,174	1,050	80	-	1,254
Pennsylvania	46,055	119,283	44,817	116,075	1,239	3,208	490	-	749	-
Rhode Island	1,545	4,002	1,045	2,706	500	1,295	178	9	-	314
South Carolina	32,020	82,932	30,110	77,983	1,911	4,949	1,008	72	-	831
South Dakota	77,117	199,731	75,885	196,540	1,232	3,191	1,232	-	-	-
Tennessee	42,143	109,151	41,217	106,752	926	2,399	926	-	-	-
Texas	268,581	695,621	261,797	678,051	6,784	17,570	5,056	404	-	1,324
Utah	84,899	219,887	82,144	212,751	2,755	7,136	2,755	-	-	-
Vermont	9,614	24,901	9,250	23,956	365	945	365	-	-	-
Virginia	42,774	110,785	39,594	102,548	3,180	8,237	1,006	1,728	-	446
Washington	71,300	184,665	66,544	172,348	4,756	12,317	1,553	2,537	-	666
West Virginia	24,230	62,755	24,078	62,361	152	394	152	-	-	-
Wisconsin	65,498	169,639	54,310	140,663	11,188	28,976	1,830	-	9,358	-
Wyoming	97,814	253,336	97,100	251,489	713	1,847	713	-	-	-
Other areas:										
Puerto Rico	5,325	13,790	3,425	8,870	1,900	4,921	67	16	-	1,817
U.S. Minor Outlying Islands	141	365	3	7	138	359	138	-	-	-
Virgin Islands of the U.S	737	1,910	134	346	604	1,564	16	-	-	588

- Represents or rounds to zero.

Source: U.S. Census Bureau, 2000 Census of Population and Housing, *Summary Population and Housing Characteristics*, Series PHC-1; and unpublished data from the Census TIGER™ data base.

No. 347. Total and Federally Owned Land by State: 2003

[(2,271,343 represents 2,271,343,000). As of end of fiscal year; see text, Section 8. Total land area figures are not comparable with those in Table 346]

State	Not owned by federal government		Owned by federal government ¹		State	Not owned by federal government		Owned by federal government ¹	
	Total (1,000 acres)	(1,000 acres)	Acres (1,000)	Percent		Total (1,000 acres)	(1,000 acres)	Acres (1,000)	Percent
United States	2,271,343	1,599,584	671,759	29.6	Missouri	44,248	42,010	2,238	5.1
Alabama	32,678	31,476	1,203	3.7	Montana	93,271	64,032	29,239	31.3
Alaska	365,482	121,635	243,847	66.7	Nebraska	49,032	47,573	1,459	3.0
Arizona	72,688	36,193	36,495	50.2	Nevada	70,264	5,675	64,589	91.9
Arkansas	33,599	29,643	3,956	11.8	New Hampshire	5,769	4,939	830	14.4
California	100,207	53,227	46,980	46.9	New Jersey	4,813	4,633	180	3.7
Colorado	66,486	43,311	23,174	34.9	New Mexico	77,766	51,248	26,518	34.1
Connecticut	3,135	3,120	15	0.5	New York	30,681	30,439	242	0.8
Delaware	1,266	1,236	29	2.3	North Carolina	31,403	27,801	3,602	11.5
District of Columbia	39	29	10	26.3	North Dakota	44,452	43,119	1,333	3.0
Florida	34,721	30,116	4,606	13.3	Ohio	26,222	25,764	458	1.7
Georgia	37,295	34,981	2,314	6.2	Oklahoma	44,088	42,756	1,331	3.0
Hawaii	4,106	3,434	672	16.4	Oregon	61,599	30,960	30,639	49.7
Idaho	52,933	17,797	35,136	66.4	Pennsylvania	28,804	28,080	725	2.5
Illinois	35,795	35,144	652	1.8	Rhode Island	677	672	5	0.8
Indiana	23,158	22,624	534	2.3	South Carolina	19,374	18,138	1,236	6.4
Iowa	35,860	35,558	303	0.8	South Dakota	48,882	46,568	2,314	4.7
Kansas	52,511	51,869	642	1.2	Tennessee	26,728	24,712	2,016	7.5
Kentucky	25,512	23,806	1,707	6.7	Texas	168,218	165,046	3,172	1.9
Louisiana	28,868	27,366	1,502	5.2	Utah	52,697	17,672	35,025	66.5
Maine	19,848	19,684	164	0.8	Vermont	5,937	5,487	450	7.6
Maryland	6,319	6,127	193	3.0	Virginia	25,496	22,879	2,617	10.3
Massachusetts	5,035	4,929	106	2.1	Washington	42,694	29,447	13,247	31.0
Michigan	36,492	32,854	3,639	10.0	West Virginia	15,411	14,144	1,266	8.2
Minnesota	51,206	47,671	3,535	6.9	Wisconsin	35,011	33,029	1,982	5.7
Mississippi	30,223	28,122	2,101	7.0	Wyoming	62,343	30,812	31,532	50.6

¹ Excludes trust properties.

Source: U.S. General Services Administration, *Federal Real Property Profile* annual. See also <<http://www.gsa.gov/cmattachments/GSAPUBLICATIONS/AnnualReport26R2AV1-z-c0Z5RDZ-i34K-pR.pdf>> (released 11 March 2003).

No. 348. Land Cover/Use by Type: 1982 to 2002

[In millions of acres (1,937.7 represents 1,937,700,000), except percent. Excludes Alaska and District of Columbia]

Year	Nonfederal rural land									
	Total surface area	Rural land, total ¹	Crop-land	Pasture land	Range-land	Forest land	Other rural land	Developed land	Water areas	Federal land
Total Land (mil. Acres)										
1982	1,937.7	1,417.2	420.4	131.4	414.5	402.6	48.3	72.8	48.6	399.1
1992	1,937.6	1,400.2	381.2	125.1	406.6	404.0	49.3	86.5	49.4	401.5
2002	1,937.7	1,378.1	368.4	117.3	405.3	404.9	50.6	107.3	50.4	401.9
Percent of total land										
1982	100.0	73.1	21.7	6.8	21.4	20.8	2.5	3.8	2.5	20.6
1992	100.0	72.3	19.7	6.5	21.0	20.9	2.5	4.5	2.5	20.7
2002	100.0	71.1	19.0	6.1	20.9	20.9	2.6	5.5	2.6	20.7

X Not applicable. ¹ Includes Conservation Reserve Program land not shown separately.

Source: U.S. Department of Agriculture, Natural Resources and Conservation Service, *National Resources Inventory 2002 Annual NRI, Land Use*, April 2004. See also <<http://www.nrcs.usda.gov/technical/land/nri02/landuse.pdf>>.

No. 349. Developed Land by Type: 1982 to 2001

[(1,937.7 represents 1,937,700,000). Excludes Alaska and District of Columbia]

Year	Developed land				
	Total surface area	Developed land, total	Large urban and built-up areas	Small built-up areas	Rural transportation land
Land (mil. acres)					
1982	1,937.7	72.8	46.9	4.7	21.2
1992	1,937.7	86.5	59.6	5.4	21.5
2001	1,937.7	106.3	77.6	6.7	22.0
Percent of total land					
1982	100.0	3.8	2.4	0.2	1.1
1992	100.0	4.5	3.1	0.3	1.1
2001	100.0	5.5	4.0	0.3	1.1

Source: U.S. Department of Agriculture, Natural Resources and Conservation Service, *National Resources Inventory 2001 Annual NRI, Urbanization and Development of Rural Land*, July 2003. See also <<http://www.nrcs.usda.gov/technical/land/nri01/urban.pdf>> (released July 2003).

No. 350. Land Cover/Use by State: 1997

[In thousands of acres (1,944,130 represents 1,944,130,000), except percent. Excludes Alaska and District of Columbia]

State	Nonfederal rural land								
	Total surface area	Rural land, total	Percent of total	Crop-land	CRP land ¹	Pasture land	Range-land	Forest land	Other rural land
Total	1,944,130	1,393,760	71.7	376,998	32,696	119,992	405,977	406,955	51,142
United States	1,941,823	1,392,098	71.7	376,630	32,696	119,549	405,832	406,315	51,077
Alabama	33,424	28,950	86.6	2,954	522	3,528	74	21,261	612
Arizona	72,964	40,858	56.0	1,212	-	73	32,323	4,216	3,035
Arkansas	34,037	28,638	84.1	7,625	230	5,351	38	15,011	384
California	101,510	47,555	46.8	9,635	173	1,049	18,269	13,936	4,494
Colorado	66,625	40,850	61.3	8,770	1,890	1,211	24,574	3,442	964
Connecticut	3,195	2,178	68.2	204	-	112	-	1,759	103
Delaware	1,534	988	64.4	485	1	24	-	352	128
Florida	37,534	25,498	67.9	2,752	120	4,231	3,229	12,536	2,630
Georgia	37,741	30,648	81.2	4,757	595	2,865	-	21,560	872
Hawaii	4,158	3,565	85.7	246	-	36	1,009	1,635	639
Idaho	53,488	18,618	34.8	5,517	785	1,315	6,501	3,948	553
Illinois	36,059	31,675	87.8	24,011	726	2,502	-	3,784	652
Indiana	23,158	20,069	86.7	13,407	378	1,830	-	3,781	674
Iowa	36,017	33,673	93.5	25,310	1,739	3,572	-	2,182	870
Kansas	52,661	49,685	94.3	26,524	2,849	2,322	15,728	1,546	716
Kentucky	25,863	22,327	86.3	5,178	332	5,686	-	10,667	465
Louisiana	31,377	24,664	78.6	5,659	140	2,385	277	13,226	2,976
Maine	20,966	18,794	89.6	413	30	123	-	17,691	537
Maryland	7,870	4,808	61.1	1,616	19	478	-	2,373	321
Massachusetts	5,339	3,394	63.6	277	-	119	-	2,744	254
Michigan	37,349	29,426	78.8	8,540	321	2,032	-	16,354	2,178
Minnesota	54,010	45,356	84.0	21,414	1,544	3,434	-	16,248	2,716
Mississippi	30,527	26,429	86.6	5,352	799	3,679	-	16,209	389
Missouri	44,614	39,358	88.2	13,751	1,606	10,849	88	12,431	634
Montana	94,110	64,958	69.0	15,171	2,721	3,443	36,751	5,431	1,443
Nebraska	49,510	47,187	95.3	19,469	1,245	1,801	23,089	826	757
Nevada	70,763	10,079	14.2	701	2	279	8,372	305	420
New Hampshire	5,941	4,353	73.3	134	-	94	-	3,932	193
New Jersey	5,216	2,766	53.0	589	1	111	-	1,698	367
New Mexico	77,823	50,071	64.3	1,875	467	231	39,990	5,467	2,041
New York	31,361	26,702	85.1	5,417	54	2,722	-	17,702	808
North Carolina	33,709	24,592	73.0	5,639	131	2,039	-	15,959	824
North Dakota	45,251	41,442	91.6	25,004	2,802	1,129	10,689	454	1,363
Ohio	26,445	22,070	83.5	11,627	324	2,006	-	7,081	1,032
Oklahoma	44,738	40,610	90.8	9,737	1,138	7,963	14,033	7,281	459
Oregon	62,161	28,858	46.4	3,762	483	1,961	9,286	12,643	724
Pennsylvania	28,995	23,816	82.1	5,471	90	1,845	-	15,478	932
Rhode Island	813	458	56.3	22	-	25	-	387	24
South Carolina	19,939	16,018	80.3	2,574	263	1,197	-	11,188	797
South Dakota	49,358	44,411	90.0	16,738	1,686	2,108	21,876	518	1,484
Tennessee	26,974	22,597	83.8	4,644	374	4,990	-	12,042	547
Texas	171,052	155,530	90.9	26,938	3,906	15,914	95,745	10,816	2,211
Utah	54,339	17,599	32.4	1,679	216	695	10,733	10,813	2,392
Vermont	6,154	5,183	84.2	607	-	338	-	4,150	88
Virginia	27,087	19,886	73.4	2,918	71	2,995	-	13,316	587
Washington	44,035	28,508	64.7	6,656	1,071	1,193	5,857	12,835	951
West Virginia	15,508	13,252	85.5	864	-	1,527	-	10,582	279
Wisconsin	35,920	30,374	84.6	10,613	661	2,994	-	14,448	1,658
Wyoming	62,603	32,773	52.4	2,174	247	1,146	27,302	1,004	900
Caribbean	2,307	1,662	72.0	368	-	443	145	640	65

- Represents or rounds to zero. ¹ Conservation Reserve Program (CRP). A federal program established under the Food Security Act of 1985 to assist private landowners to convert highly erodible cropland to vegetative cover for 10 years.

Source: U.S. Department of Agriculture, Natural Resources and Conservation Service, and Iowa State University, Statistical Laboratory, *Summary Report, 1997 National Resources Inventory*, revised December 2000.
See also <<http://www.nrcs.usda.gov/technical/NRI/1997/summaryreport/>> (revised December 2000).

No. 351. Extreme and Mean Elevations by State and Other Area

[One foot=.305 meter]

State and other areas	Highest point				Lowest point				Approximate mean elevation	
	Name	Elevation		Name	Elevation		Feet Meters			
		Feet	Meters		Feet	Meters	Feet	Meters		
U.S.	Mt. McKinley (AK)	20,320	6,198	Death Valley (CA).	-282	-86	2,500	763		
AL	Cheaha Mountain	2,405	733	Gulf of Mexico	(¹)	(¹)	500	153		
AK	Mount McKinley	20,320	6,198	Pacific Ocean	(¹)	(¹)	1,900	580		
AZ	Humphreys Peak	12,633	3,853	Colorado River	70	21	4,100	1,251		
AR	Magazine Mountain	2,753	840	Ouachita River	55	17	650	198		
CA	Mount Whitney	14,494	4,419	Death Valley	-282	-86	2,900	885		
CO	Mt. Elbert	14,433	4,402	Arkansas River	3,350	1,022	6,800	2,074		
CT	Mt. Frissell on South slope.	2,380	726	Long Island Sound	(¹)	(¹)	500	153		
DE	Ebright Road, ²									
	New Castle County	448	137	Atlantic Ocean	(¹)	(¹)	60	18		
DC	Tenleytown at Reno Reservoir	410	125	Potomac River	1	(Z)	150	46		
FL	Sec. 30, T6N, R20W, Walton County	345	105	Atlantic Ocean	(¹)	(¹)	100	31		
GA	Brasstown Bald	4,784	1,459	Atlantic Ocean	(¹)	(¹)	600	183		
HI	Puu Wekiu	13,796	4,208	Pacific Ocean	(¹)	(¹)	3,030	924		
ID	Borah Peak	12,662	3,862	Snake River	710	217	5,000	1,525		
IL	Charles Mound	1,235	377	Mississippi River	279	85	600	183		
IN	Franklin Twp., Wayne Co.	1,257	383	Ohio River	320	98	700	214		
IA	Sec. 29, T100N, R41W, Osceola County ³	1,670	509	Mississippi River	480	146	1,100	336		
KS	Mount Sunflower	4,039	1,232	Verdigris River	679	207	2,000	610		
KY	Black Mountain	4,139	2,162	Mississippi River	257	78	750	229		
LA	Driskill Mountain	535	163	New Orleans	-8	-2	100	31		
ME	Mount Katahdin	5,267	1,606	Atlantic Ocean	(¹)	(¹)	600	183		
MD	Backbone Mountain	3,360	1,025	Atlantic Ocean	(¹)	(¹)	350	107		
MA	Mount Greylock	3,487	1,064	Atlantic Ocean	(¹)	(¹)	500	153		
MI	Mount Arvon	1,979	604	Lake Erie	571	174	900	275		
MN	Eagle Mountain, Cook Co.	2,301	702	Lake Superior	601	183	1,200	366		
MS	Woodall Mountain	806	246	Gulf of Mexico	(¹)	(¹)	300	92		
MO	Taum Sauk Mountain	1,772	540	St. Francis River	230	70	800	244		
MT	Granite Peak	12,799	3,904	Kootenai River	1,800	549	3,400	1,037		
NE	Johnson Twp., Kimball Co.	5,424	1,654	Missouri River	840	256	2,600	793		
NV	Boundary Peak	13,140	4,007	Colorado River	479	146	5,500	1,678		
NH	Mount Washington	6,288	1,918	Atlantic Ocean	(¹)	(¹)	1,000	305		
NJ	High Point	1,803	550	Atlantic Ocean	(¹)	(¹)	250	76		
NM	Wheeler Peak	13,161	4,014	Red Bluff Reservoir	2,842	867	5,700	1,739		
NY	Mount Marcy	5,344	1,630	Atlantic Ocean	(¹)	(¹)	1,000	305		
NC	Mount Mitchell	6,684	2,039	Atlantic Ocean	(¹)	(¹)	700	214		
ND	White Butte, Slope Co	3,506	1,069	Red River	750	229	1,900	580		
OH	Campbell Hill	1,549	472	Ohio River	455	139	850	259		
OK	Black Mesa	4,973	1,517	Little River	289	88	1,300	397		
OR	Mount Hood	11,239	3,428	Pacific Ocean	(¹)	(¹)	3,300	1,007		
PA	Mount Davis	3,213	980	Delaware River	(¹)	(¹)	1,100	336		
RI	Jerimoth Hill	812	248	Atlantic Ocean	(¹)	(¹)	200	61		
SC	Sassafras Mountain	3,560	1,086	Atlantic Ocean	(¹)	(¹)	350	107		
SD	Harney Peak	7,242	2,209	Big Stone Lake	966	295	2,200	671		
TN	Clingmans Dome	6,643	2,026	Mississippi River	178	54	900	275		
TX	Guadalupe Peak	8,749	2,668	Gulf of Mexico	(¹)	(¹)	1,700	519		
UT	Kings Peak	13,528	4,126	Beaver Dam Wash	2,000	610	6,100	1,861		
VT	Mount Mansfield	4,393	1,340	Lake Champlain	95	29	1,000	305		
VA	Mount Rogers	5,729	1,747	Atlantic Ocean	(¹)	(¹)	950	290		
WA	Mount Rainier	14,410	4,395	Pacific Ocean	(¹)	(¹)	1,700	519		
WV	Spruce Knob	4,861	1,483	Potomac River	240	73	1,500	458		
WI	Timms Hill	1,951	595	Lake Michigan	579	177	1,050	320		
WY	Gannett Peak	13,804	4,210	Belle Fourche River	3,099	945	6,700	2,044		
Other areas:										
Puerto Rico	Cerro de Punta	4,390	1,339	Atlantic Ocean	(¹)	(¹)	1,800	549		
American Samoa	Lata Mountain	3,160	964	Pacific Ocean	(¹)	(¹)	1,300	397		
Guam	Mount Lamlam	1,332	406	Pacific Ocean	(¹)	(¹)	330	101		
Virgin Is.	Crown Mountain	1,556	475	Atlantic Ocean	(¹)	(¹)	750	229		

Z Less than 0.5 meter. ¹ Sea level. ² At DE-PA state line. ³ "Sec." denotes section; "T," township; "R," range; "N," north; and "W," west.

Source: U.S. Geological Survey, for highest and lowest points, *Elevations and Distances in the United States, 1990*, for mean elevations, 1983 edition.

No. 352. U.S. Wetland Resources and Deepwater Habitats by Type: 1986 and 1997

[In thousands of acres (144,673.3 represents 144,677,300). Wetlands and deepwater habitats are defined separately because the term wetland does not include permanent water bodies. Deepwater habitats are permanently flooded land lying below the deepwater boundary of wetlands. Deepwater habitats include environments where surface water is permanent and often deep, so that water, rather than air, is the principal medium within which the dominant organisms live, whether or not they are attached to the substrate. As in wetlands, the dominant plants are hydrophytes; however, the substrates are considered nonsoil because the water is too deep to support emergent vegetation. In general terms, wetlands are lands where saturation with water is the dominant factor determining the nature of soil development and the types of plant and animal communities living in the soil and on its surface. The single feature that most wetlands share is soil or substrate that is at least periodically saturated with or covered by water. Wetlands are lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water]

Wetland or deepwater category			Change, 1986 to 1997
	1986	1997	
All wetlands and deepwater habitats, total	144,673.3	144,136.8	-536.5
All deepwater habitats, total	38,537.6	38,645.1	107.5
Lacustrine ¹	14,608.9	14,725.3	116.4
Riverine ²	6,291.1	6,255.9	-35.2
Estuarine Subtidal ³	17,637.6	17,663.9	26.3
All wetlands, total.	106,135.7	105,491.7	-644
Intertidal wetlands ⁴	5,336.6	5,326.2	-10.4
Marine intertidal	133.1	130.9	-2.2
Estuarine intertidal non-vegetated.	580.4	580.1	-0.3
Estuarine intertidal vegetated.	4,623.1	4,615.2	-7.9
Freshwater wetlands	100,799.1	100,165.5	-633.6
Freshwater non-vegetated.	5,251.0	5,914.3	663.3
Freshwater vegetated.	95,548.1	94,251.2	-1,296.9
Freshwater emergent ⁵	26,383.3	25,157.1	-1,226.2
Freshwater forested ⁶	51,929.6	50,728.5	-1,201.1
Freshwater shrub ⁷	17,235.2	18,365.6	1,130.4

¹ The lacustrine system includes deepwater habitats with all of the following characteristics: (1) situated in a topographic depression or a dammed river channel; (2) lacking trees, shrubs, persistent emergents, emergent mosses or lichens with greater than 30 percent coverage; (3) total area exceeds 20 acres. ² The riverine system includes deepwater habitats contained within a channel, with the exception of habitats with water containing ocean derived salts in excess of 0.5 parts per thousand. ³ The estuarine system consists of deepwater tidal habitats and adjacent tidal wetland that are usually semi-enclosed by land but have open, partly obstructed, or sporadic access to the open ocean, and in which ocean water is at least occasionally diluted by freshwater runoff from the land. Subtidal is where the substrate is continuously submerged by marine or estuarine waters. ⁴ Intertidal is where the substrate is exposed and flooded by tides. Intertidal includes the splash zone of coastal waters. ⁵ Emergent wetlands are characterized by erect, rooted, herbaceous hydrophytes, excluding mosses and lichens. This vegetation is present for most of the growing season in most years. These wetlands are usually dominated by perennial plants. ⁶ Forested wetlands are characterized by woody vegetation that is 20 feet tall or taller. ⁷ Shrub wetlands include areas dominated by woody vegetation less than 20 feet tall. The species include true shrubs, young trees, and trees or shrubs that are small or stunted because of environmental conditions.

Source: U.S. Fish and Wildlife Service, *Status and Trends of Wetlands in the Conterminous United States, 1986 to 1997*, January 2001. See also <<http://wetlands.fws.gov/status-trends/SandT2000Reportlowres.pdf>>.

No. 353. Water Areas for Selected Major Bodies of Water: 2000

[Includes only that portion of body of water under the jurisdiction of the United States, excluding Hawaii. One square mile=2.59 square kilometers]

Body of water and State	Area		Body of water and State	Area	
	Sq. mi.	Sq. km.		Sq. mi.	Sq. km.
Atlantic Coast water bodies:			Willapa Bay (WA)	125	325
Chesapeake Bay (MD-VA)	2,747	7,115	Hood Canal (WA)	117	303
Pamlico Sound (NC)	1,622	4,200	Interior water bodies:		
Long Island Sound (CT-NY)	914	2,368	Lake Michigan (IL-IN-MI-WI)	22,342	57,866
Delaware Bay (DE-NJ)	614	1,591	Lake Superior (MI-MN-WI)	20,557	53,243
Cape Cod Bay (MA)	598	1,548	Lake Huron (MI)	8,800	22,792
Albemarle Sound (NC)	492	1,274	Lake Erie (MI-NY-OH-PA) ¹	5,033	13,036
Biscayne Bay (FL)	218	565	Lake Ontario (NY)	3,446	8,926
Buzzards Bay (MA)	215	558	Great Salt Lake (UT)	1,836	4,756
Buzzard Sound (MD-VA)	172	445	Green Bay (MI-WI)	1,396	3,617
Currituck Sound (NC)	116	301	Lake Okeechobee (FL)	663	1,717
Pocomoke Sound (MD-VA)	111	286	Lake Sakakawea (ND)	563	1,459
Chincoteague Bay (MD-VA)	105	272	Lake Oahe (ND-SD)	538	1,394
Gulf Coast water bodies:			Lake of the Woods (MN)	462	1,196
Mississippi Sound (AL-LA-MS)	813	2,105	Lake Champlain (NY-VT) ¹	414	1,072
Laguna Madre (TX)	733	1,897	Alaska water bodies:		
Lake Pontchartrain (LA)	631	1,635	Chatham Strait	1,559	4,039
Florida Bay (FL)	616	1,596	Prince William Sound	1,382	3,579
Breton Sound (LA)	511	1,323	Clarence Strait	1,199	3,107
Mobile Bay (AL)	310	802	Iliamna Lake	1,022	2,646
Lake Borgne (LA-MS)	271	702	Frederick Sound	792	2,051
Matagorda Bay (TX)	253	656	Sumner Strait	791	2,048
Atchafalaya Bay (LA)	245	635	Stephens Passage	702	1,819
Galveston Bay (TX)	236	611	Kvichak Bay	640	1,659
Tampa Bay (FL)	212	549	Montage Strait	463	1,198
Pacific Coast water bodies:			Becharof Lake	447	1,158
Puget Sound (WA)	808	2,092	Icy Strait	436	1,130
San Francisco Bay (CA)	264	684			

¹ Area measurements for Lake Champlain, Lake Erie, Lake Huron, Lake Ontario, Lake St. Clair, Lake Superior, and Lake of the Woods include only those portions under the jurisdiction of the United States.

Source: U. S. Census Bureau, unpublished data from the Census TIGER™ data base.

No. 354. Flows of Largest U.S. Rivers—Length, Discharge, and Drainage Area

River	Location of mouth	Source stream (name and location)	Length (miles) ¹	Average	Drainage area (1,000 sq. mi.)
				discharge at mouth (1,000 cubic ft. per second)	
Missouri	Missouri	Red Rock Creek, MT	2,540	76.2	2,529
Mississippi	Louisiana	Mississippi River, MN	² 2,340	⁴ 593	^{2,5} 1,150
Yukon	Alaska	McNeil River, Canada	1,980	225	2,328
St. Lawrence	Canada	North River, MN	1,900	348	2,396
Rio Grande	Mexico-Texas	Rio Grande, CO	1,900	-	336
Arkansas	Arkansas	East Fork Arkansas River, CO	1,460	41	161
Colorado	Mexico	Colorado River, CO	1,450	-	246
Atchafalaya ⁶	Louisiana	Tierra Blanca Creek, NM	1,420	58	95.1
Ohio	Illinois-Kentucky	Allegheny River, PA	1,310	281	203
Red	Louisiana	Tierra Blanca Creek, NM	1,290	56	93.2
Brazos	Texas	Blackwater Draw, NM	1,280	-	45.6
Columbia	Oregon-Washington	Columbia River, Canada	1,240	265	2,258
Snake	Washington	Snake River, WY	1,040	56.9	108
Platte	Nebraska	Grizzly Creek, CO	990	-	84.9
Pecos	Texas	Pecos River, NM	926	-	44.3
Canadian	Oklahoma	Canadian River, CO	906	-	46.9
Tennessee	Kentucky	Courthouse Creek, NC	886	68	40.9
Colorado (of Texas)	Texas	Colorado River, TX	862	-	42.3
North Canadian	Oklahoma	Corrumpa Creek, NM	800	-	17.6
Mobile	Alabama	Tickanetley Creek, GA	774	67.2	44.6
Kansas	Kansas	Arikaree River, CO	743	-	59.5
Kuskokwim	Alaska	South Fork Kuskokwim River, AK	724	67	48
Yellowstone	North Dakota	North Fork Yellowstone River, WY	692	-	70
Tanana	Alaska	Nabesna River, AK	659	41	44.5
Gila	Arizona	Middle Fork Gila River, NM	649	-	58.2
Porcupine	Alaska	Porcupine River, Canada	569	23	45.1
Susquehanna	Maryland	Hayden Creek, NY	447	38.2	27.2

- Represents zero. ¹ From source to mouth. ² Drainage area includes both the United States and Canada. ³ The length from the source of the Missouri River to the Mississippi River and thence to the Gulf of Mexico is about 3,710 miles. ⁴ Includes about 167,000 cubic ft. per second diverted from the Mississippi into the Atchafalaya River but excludes the flow of the Red River. ⁵ Excludes the drainage areas of the Red and Atchafalaya Rivers. ⁶ In east-central Louisiana, the Red River flows into the Atchafalaya River, a distributary of the Mississippi River. Data on average discharge, length, and drainage area include the Red River, but exclude all water diverted into the Atchafalaya from the Mississippi River.

Source: U.S. Geological Survey, *Largest Rivers in the United States*, Open File Report 87-242, May 1990.

No. 355. U.S. Water Withdrawals and Consumptive Use Per Day by End Use: 1940 to 2000

[In billions of gallons, except as indicated. (140 represents 140,000,000,000). Includes Puerto Rico. Withdrawal signifies water physically withdrawn from a source. Includes fresh and saline water; excludes water used for hydroelectric power]

Year	Total	Per	Irrigation	Public sup- ply ²	Rural ³	Industrial and misc. ⁴	Steam electric utilities
		capita ¹ (gal.)					
WITHDRAWALS							
1940	140	1,027	71	10	3.1	29	23
1950	180	1,185	89	14	3.6	37	40
1955	240	1,454	110	17	3.6	39	72
1960	270	1,500	110	21	3.6	38	100
1965	310	1,602	120	24	4.0	46	130
1970	370	1,815	130	27	4.5	47	170
1975	420	1,972	140	29	4.9	45	200
1980	440	1,953	150	34	5.6	45	210
1985	399	1,650	137	38	7.8	31	187
1990	408	1,620	137	41	7.9	30	195
1995	402	1,500	134	40	8.9	29	190
2000	408	1,430	137	43	9.2	23	196
CONSUMPTIVE USE							
1960	61	339	52	3.5	2.8	3.0	0.2
1965	77	403	66	5.2	3.2	3.4	0.4
1970	87	427	73	5.9	3.4	4.1	0.8
1975	96	451	80	6.7	3.4	4.2	1.9
1980	100	440	83	7.1	3.9	5.0	3.2
1985	92	380	74	(5)	9.2	6.1	6.2
1990	94	370	76	(5)	8.9	6.7	4.0
1995	100	374	81	(7)	9.9	4.8	3.7
2000	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)

NA Not available. ¹ Based on U.S. Census Bureau resident population as of July 1. ² Includes commercial water withdrawals. ³ Rural farm and nonfarm household and garden use, and water for farm stock and dairies. ⁴ For 1940 to 1960, includes manufacturing and mineral industries, rural commercial industries, air-conditioning, resorts, hotels, motels, military and other state and Federal agencies, and miscellaneous; thereafter, includes manufacturing, mining and mineral processing, ordnance, construction, and miscellaneous. ⁵ Public supply consumptive use included in end-use categories.

Source: 1940-1960, U.S. Bureau of Domestic Business Development, based principally on committee prints, *Water Resources Activities in the United States*, for the Senate Committee on National Water Resources, U.S. Senate, thereafter, U.S. Geological Survey, *Estimated Use of Water in the United States in 2000*, circular 1268.

No. 356. Water Withdrawals by Source, Type, and Use—State and Other Areas: 2000

[In millions of gallons per day(408,000 represents 408,000,000,000), except as noted. Figures may not add due to rounding. Withdrawal signifies water physically withdrawn from a source. Includes fresh and saline water. For information on methodology and differences with prior surveys, see <<http://water.usgs.gov/pubs/circ/2004/circ1268/hdocs/text-intro.html>>]

State and other area	Source			Type		Selected major uses				
	Total	Ground water	Surface water	Fresh water	Saline water	Public supply	Domestic	Irrigation	Industrial ¹	Thermoelectric ¹
Total²	408,000	84,500	323,000	345,000	62,300	43,300	3,590	137,000	19,780	195,500
Alabama	9,990	440	9,550	9,990	-	834	79	43	833	8,190
Alaska	305	141	164	161	144	80	11	1	12	34
Arizona	6,730	3,430	3,300	6,720	8	1,080	29	5,400	20	100
Arkansas	10,900	6,920	3,950	10,900	-	421	29	7,910	134	2,180
California	51,200	15,400	35,800	38,400	12,800	6,120	286	30,500	202	12,952
Colorado	12,600	2,320	10,300	12,600	-	899	67	11,400	120	138
Connecticut	4,150	143	4,010	708	3,440	424	56	30	11	3,627
Delaware	1,320	115	1,210	582	741	95	13	44	63	1,104
District of Columbia	10	-	10	10	-	-	-	-	-	10
Florida	20,100	5,020	15,100	8,140	12,000	2,440	199	4,290	292	12,658
Georgia	6,500	1,450	5,060	6,410	92	1,250	110	1,140	652	3,312
Hawaii	941	434	208	640	1	250	12	364	15	-
Idaho	19,500	4,140	15,300	19,500	-	244	85	17,100	56	-
Illinois	13,700	813	12,900	13,700	-	1,760	135	154	391	11,300
Indiana	10,100	656	9,460	10,100	-	670	122	101	2,400	6,700
Iowa	3,360	679	2,680	3,360	-	383	33	22	237	2,540
Kansas	6,610	3,790	2,820	6,610	-	416	22	3,710	53	2,260
Kentucky	4,180	189	3,970	4,180	-	525	28	29	317	3,260
Louisiana	10,400	1,630	8,730	10,400	-	753	41	1,020	2,680	5,610
Maine	799	81	718	504	295	102	36	6	247	408
Maryland	7,910	225	7,690	1,430	6,490	824	77	42	293	6,639
Massachusetts	4,660	269	4,390	1,050	3,610	739	42	126	37	3,718
Michigan	10,000	734	9,260	10,000	-	1,140	239	201	696	7,710
Minnesota	3,870	720	3,150	3,870	-	500	81	227	154	2,270
Mississippi	2,960	2,180	781	2,810	148	359	69	1,410	242	510
Missouri	8,230	1,780	6,450	8,230	-	872	54	1,430	63	5,640
Montana	8,290	188	8,100	8,290	-	149	13	7,950	61	110
Nebraska	12,300	7,860	4,390	12,200	5	330	48	8,790	36	2,820
Nevada	2,810	757	2,050	2,810	-	629	22	2,110	10	37
New Hampshire	1,210	85	1,120	447	761	97	41	5	45	997
New Jersey	5,560	584	4,980	2,170	3,390	1,050	80	140	132	4,040
New Mexico	3,260	1,540	1,710	3,260	-	296	31	2,860	11	56
New York	12,100	893	11,200	7,080	5,010	2,570	142	36	297	9,050
North Carolina	11,400	580	10,800	9,730	1,620	945	189	287	293	9,470
North Dakota	1,140	123	1,020	1,140	-	64	12	145	18	902
Ohio	11,100	878	10,300	11,100	-	1,470	134	32	807	8,590
Oklahoma	2,020	1,030	990	1,760	256	675	26	718	26	146
Oregon	6,930	993	5,940	6,930	-	566	76	6,080	195	15
Pennsylvania	9,950	666	9,290	9,950	-	1,460	132	14	1,190	6,980
Rhode Island	429	29	400	138	290	119	9	3	4	292
South Carolina	7,170	330	6,840	7,170	-	566	64	267	565	5,710
South Dakota	528	222	306	528	-	93	10	373	5	5
Tennessee	10,800	417	10,400	10,800	-	890	33	22	842	9,040
Texas	29,600	8,970	20,700	24,800	4,850	4,230	131	8,630	2,357	13,260
Utah	4,970	1,050	3,920	4,760	203	638	16	3,860	48	62
Vermont	447	43	404	447	-	60	21	4	7	355
Virginia	8,830	314	8,520	5,200	3,640	720	133	26	523	7,430
Washington	5,310	1,470	3,840	5,270	40	1,020	125	3,040	617	519
West Virginia	5,150	91	5,060	5,150	-	190	40	-	968	3,950
Wisconsin	7,590	813	6,780	7,590	-	623	96	196	447	6,090
Wyoming	5,170	763	4,400	4,940	222	107	7	4,500	6	243
Puerto Rico	2,810	137	2,670	620	2,190	513	1	95	11	2,190
Virgin Islands	148	1	147	12	136	6	2	1	3	136

- Represents zero. ¹ Represents both fresh and saline water. ² Includes Puerto Rico and Virgin Islands.

Source: U.S. Geological Survey, *Estimated Use of Water in the United States in 2000*, circular 1268. See also <<http://water.usgs.gov/pubs/circ/2004/circ1268/#availability>> (released March 2004).

No. 357. U.S. Water Quality Conditions by Type of Waterbody: 2000

[Section 305(b) of the Clean Water Act requires states and other jurisdictions to assess the health of their waters and the extent to which their waters support water quality standards. Section 305(b) requires that states submit reports describing water quality conditions to the Environmental Protection Agency every two years. Water quality standards have three elements (designated uses, criteria developed to protect each use, and an antidegradation policy). For information on survey methodology and assessment criteria, see report]

Item	Rivers and streams (miles)	Lakes, reservoirs, and ponds (acres)	Estuaries (sq. miles)	Great Lakes shoreline (miles)	Ocean shoreline (miles)
Total size	3,692,830	40,603,893	87,369	5,521	58,618
Amount accessed ¹	699,946	17,339,080	31,072	5,066	3,221
Percent of total size	19	43	36	92	6
Amount accessed as—					
Good ²	463,441	8,026,988	13,850	-	2,176
Good but threatened ³	85,544	1,343,903	1,023	1,095	193
Polluted ⁴	291,264	7,702,370	15,676	3,955	434
Percent of accessed as—					
Good ²	53	47	45	-	79
Good but threatened ³	8	8	4	22	7
Polluted ⁴	39	45	51	78	14
Amount impaired by leading sources of pollution: ⁵					
Agriculture	128,859	3,158,393	2,811	75	(NA)
Atmospheric deposition	(NA)	983,936	3,692	71	(NA)
Construction	(NA)	(NA)	(NA)	(NA)	29
Contaminated sediments	(NA)	(NA)	(NA)	519	(NA)
Forestry	28,156	(NA)	(NA)	(NA)	(NA)
Habitat modification	37,654	(NA)	(NA)	62	(NA)
Hydrologic modification	53,850	1,413,624	2,171	(NA)	(NA)
Industrial discharges/point sources	(NA)	(NA)	4,116	(NA)	76
Land disposal of wastes	(NA)	856,586	(NA)	61	123
Municipal point sources	27,988	943,715	5,779	(NA)	89
Nonpoint sources	(NA)	1,045,036	(NA)	(NA)	142
Resource extraction	27,695	(NA)	1,913	(NA)	(NA)
Septic tanks	(NA)	(NA)	(NA)	61	103
Urban runoff and storm sewers	34,871	13,699,327	5,045	152	241

- Represents zero. NA Not available. ¹ Includes waterbodies accessed as not attainable for one or more uses. Most states do not assess all their waterbodies during the 2-year reporting cycle, but use a "rotating basin approach" whereby all waters are monitored over a set period of time. ² Based on assessment of available data, water quality supports all designated uses. Water quality meets narrative and/or numeric criteria adopted to protect and support a designated use. ³ Although all assessed uses are currently met, data show a declining trend in water quality. Projections based on this trend indicate water quality will be impaired in the future, unless action is taken to prevent further degradation. ⁴ Impaired or not attainable. The reporting state or jurisdiction has performed a "use-attainability analysis" and demonstrated that support of one or more designated beneficial uses is not attainable due to specific biological, chemical, physical, or economic/social conditions. ⁵ Excludes unknown and natural sources.

Source: U.S. Environmental Protection Agency, *National Water Quality Inventory: 2000 Report*, EPA-841-R-02-001, August 2002. See also <<http://www.epa.gov/305b/2000report>>.

No. 358. Oil Spills in U.S. Water—Number and Volume: 1998 to 2001

[Based on reported discharges into U.S. navigable waters, including territorial waters (extending 3 to 12 miles from the coastline), tributaries, the contiguous zone, onto shoreline, or into other waters that threaten the marine environment. Data found in Marine Safety Management System]

Spill characteristic	Number of spills				Spill volume (gallons)			
	1998	1999	2000	2001	1998	1999	2000	2001
Total	8,315	8,539	8,354	7,559	885,303	1,172,449	1,431,370	854,520
Size of spill (gallons):								
1-100	7,962	8,212	8,058	7,256	38,093	39,119	39,355	33,276
101-1,000	259	240	219	216	86,606	86,530	78,779	86,955
1,001-3,000	54	42	37	45	96,743	74,582	67,529	77,447
3,001-5,000	15	18	12	16	64,609	73,798	45,512	67,241
5,001-10,000	15	10	16	11	108,148	66,274	112,415	89,224
10,001-50,000	8	12	6	14	216,335	301,510	108,400	376,057
50,001-100,000	-	4	4	-	-	245,406	266,380	-
100,001-1,000,000	2	1	2	1	274,769	285,230	713,000	124,320
1,000,000 and over	-	-	-	-	-	-	-	-
Waterbody:								
Atlantic ocean	109	148	150	83	6,674	29,440	135,010	7,168
Pacific ocean	644	758	623	493	192,775	150,694	36,301	53,295
Gulf of Mexico	2,190	1,756	1,838	1,728	181,372	45,786	112,069	133,872
Great Lakes	119	129	96	109	3,006	906	4,535	1,600
Lakes	25	31	32	35	63	624	349	244
Rivers and canals	1,944	1,924	1,816	1,682	280,651	504,264	663,404	237,980
Bays and sounds	891	1,299	1,248	1,140	24,234	136,650	49,783	139,300
Harbors	790	907	801	893	97,223	105,213	273,095	158,667
Other	1,603	1,587	1,750	1,396	99,305	198,872	156,824	122,394
Source:								
Tankship	104	92	111	95	56,673	8,414	608,176	125,217
Tankbarge	220	227	229	246	248,089	158,977	133,540	212,298
All other vessels	4,848	5,361	5,220	4,680	316,473	409,084	291,927	232,341
Facilities	937	1,019	1,054	995	166,269	367,537	311,604	201,025
Pipelines	45	25	25	34	47,863	36,140	17,021	13,577
All other non-vessels	571	571	566	436	32,584	147,704	45,136	55,921
Unknown	1,590	1,244	1,149	1,073	17,352	44,593	23,966	14,141

- Represents or rounds to zero.

Source: U.S. Coast Guard, <<http://www.uscg.mil/hq/g-m/nmc/response/stats/Summary.htm>> and <<http://www.uscg.mil/hq/g-m/nmc/response/stats/chpt2001.pdf>> (released August 2003).

No. 359. National Ambient Air Pollutant Concentrations: 1992 to 2001

[Data represent annual composite averages of pollutant based on daily 24-hour averages of monitoring stations, except carbon monoxide is based on the second-highest, non-overlapping, 8-hour average; ozone, the second-highest daily maximum 1-hour value or the fourth-highest maximum 8-hour value; and lead, the maximum quarterly average of ambient lead levels. Based on data from the Air Quality System. $\mu\text{g}/\text{m}^3$ =micrograms of pollutant per cubic meter of air; ppm=parts per million]

Pollutant	Unit	Monitoring stations, number	Air quality standard ¹	1992	1995	1997	1998	1999	2000	2001
				Carbon monoxide	ppm	387	² 9	5.2	4.6	4.1
Ozone	ppm	785	³ .12	0.104	0.111	0.104	0.110	0.107	0.1	0.101
Ozone	ppm	785	⁴ 0.08	0.081	0.087	0.082	0.087	0.086	0.08	0.081
Sulfur dioxide	ppm	449	.03	0.0075	0.0057	0.0055	0.0055	0.0053	0.0051	0.0049
Particulates (PM-10)	$\mu\text{g}/\text{m}^3$	770	⁵ 50	27.7	25.7	24.6	24.3	24.8	24.4	23.9
Nitrogen dioxide	ppm	250	⁶ 0.53	0.019	0.018	0.017	0.018	0.018	0.017	0.017
Lead	$\mu\text{g}/\text{m}^3$	96	⁶ 1.5	0.08	0.06	0.05	0.05	0.05	0.05	0.06

¹ Refers to the primary National Ambient Air Quality Standard that protects the public health. ² Based on 8-hour standard of 9 ppm. ³ Based on 1-hour standard of .12 ppm. ⁴ Based on 8-hour standard of .08 ppm. ⁵ The particulates (PM-10) standard replaced the previous standard for total suspended particulates in 1987. ⁶ Based on 3-month standard of 1.5 $\mu\text{g}/\text{m}^3$.

No. 360. National Air Pollutant Emissions: 1970 to 2001

[In thousands of tons (13,042 represents 13,042,000), except as indicated. PM-10=Particulate matter of less than ten microns; PM-2.5=particulate matter of less than 2.5 microns effective diameter. Methodologies used to estimate data for 1970 to 1980 period and 1985 to present emissions differ. Beginning with 1985, the methodology for more recent years is described in the document available at <<http://www.epa.gov/ttn/chieftrends/trends99/neiproc99.pdf>>]

Year	PM-10	PM-10, fugitive dust ¹	PM-2.5	Sulfur dioxide	Nitrogen dioxides	Volatile organic compounds	Carbon monoxide	Lead ² (tons)
1970	13,042	(NA)	(NA)	31,161	20,928	30,982	129,444	220,869
1975	7,671	(NA)	(NA)	28,011	22,632	26,079	116,757	159,659
1980	7,013	(NA)	(NA)	25,925	27,079	31,106	185,407	74,153
1985	11,590	29,734	(NA)	23,307	25,757	27,404	176,844	22,890
1990	9,690	18,068	7,561	23,078	25,530	24,116	154,189	4,975
1991	9,270	18,075	7,320	22,375	25,179	23,577	147,128	4,169
1992	8,927	18,170	7,198	22,082	25,260	23,066	140,896	3,810
1993	8,411	18,953	7,150	21,772	25,357	22,730	135,901	3,916
1994	8,888	19,722	7,541	21,346	25,349	22,569	133,559	4,047
1995	8,807	17,012	6,929	18,619	24,956	22,041	126,777	3,929
1996	9,017	13,845	6,726	18,387	24,790	20,870	128,860	2,627
1997	8,396	14,516	6,257	18,841	24,712	19,534	117,913	(NA)
1998	8,345	14,555	6,263	18,947	24,349	18,783	115,382	(NA)
1999	9,185	12,447	6,813	17,651	23,671	19,378	117,229	(NA)
2000	10,385	14,314	8,175	16,317	23,199	19,704	123,568	(NA)
2001	9,442	14,662	7,380	15,790	22,349	17,963	120,759	(NA)

NA Not available. ¹ Sources such as agricultural tilling, construction, mining and quarrying, paved roads, unpaved roads, and wind erosion. ² Beginning 1996, lead and lead compounds are inventoried through the hazardous air pollutants (HAPs) portion of the National Emission Inventory (NEI) every three years; data for 1997 forward are currently not available.

No. 361. Air Pollutant Emissions by Pollutant and Source: 2001

[In thousands of tons, except as indicated. See headnote, Table 360]

Source	PM-10 ¹	PM-2.5	Sulfur dioxide	Nitrogen dioxides	Volatile organic compounds	Carbon monoxide
	Total emissions	24,104	7,379	15,790	22,349	17,963
Fuel combustion, stationary sources	1,504	1,319	13,632	8,599	1,184	4,592
Electric utilities	663	568	10,821	4,891	63	492
Industrial	330	258	2,262	2,640	168	1,181
Other fuel combustion	511	493	549	1,068	953	2,919
Residential	423	419	164	674	925	2,759
Industrial processes	667	483	1,405	847	1,249	2,519
Chemical and allied product manufacturing	54	46	329	117	305	381
Metals processing	172	143	358	96	72	1,356
Petroleum and related industries	39	26	310	129	394	169
Other	402	268	408	505	478	613
Solvent utilization	5	41	6	11	5,053	50
Storage and transport	86	-	-	-	1,150	174
Waste disposal and recycling	504	475	35	169	541	3,229
Highway vehicles	219	162	261	8,249	4,874	74,826
Light-duty gas vehicles and motorcycles	51	27	103	2,386	2,620	41,231
Light-duty trucks	31	17	71	1,503	1,805	29,333
Heavy-duty gas vehicles	10	7	14	456	224	3,133
Diesels	127	111	73	3,904	225	1,129
Off highway	316	290	440	4,156	2,622	24,677
Miscellaneous ³	20,803	4,609	10	314	1,290	10,693

- Represents or rounds to zero. ¹ Represents both PM-10 and PM-10 fugitive dust; see Table 361. ² Includes emissions from farm tractors and other farm machinery, construction equipment, industrial machinery, recreational marine vessels, and small general utility engines such as lawn mowers. ³ Includes emissions such as from forest fires and other kinds of burning, various agricultural activities, fugitive dust from paved and unpaved roads, and other construction and mining activities, and natural sources.

Source of Tables 359-361: U.S. Environmental Protection Agency, *Latest Findings on National Air Quality, 2002 Status and Trends*, EPA 454/K-02-001, September 2002. See also <<http://www.epa.gov/ttn/chieftrends/index.html#tables>>.

No. 362. Emissions of Greenhouse Gases by Type and Source: 1990 to 2002

[6,156.0 represents 6,156,000,000 tons. Emission estimates were mandated by Congress through Section 1605(a) of the Energy Policy Act of 1992 (Title XVI). Gases that contain carbon can be measured either in terms of the full molecular weight of the gas or just in terms of their carbon dioxide equivalent. Both measures are utilized below]

Type and source	Unit	1990	1995	1999	2000	2001	2002
CARBON DIOXIDE EQUIVALENT							
Total emissions	Mil. metric tons.	6,156.0	6,470.0	6,795.0	6,957.0	6,829.0	6,862.0
Carbon dioxide, total	Mil. metric tons.	5,006.1	5,318.5	5,686.1	5,854.0	5,748.3	5,795.6
Energy sources	Mil. metric tons .	4,988.6	5,255.8	5,630.5	5,798.6	5,691.7	5,729.3
C02 in natural gas	Mil. metric tons .	14.0	16.7	17.8	18.2	18.6	18.1
Cement production	Mil. metric tons .	33.3	36.9	40.1	41.3	41.4	43.3
Gas flaring	Mil. metric tons .	9.1	17.2	6.7	5.5	5.2	5.1
Other industrial	Mil. metric tons .	26.8	28.4	29.3	29.6	27.7	27.4
Waste combustion	Mil. metric tons .	17.0	22.2	25.2	19.9	19.8	19.8
Other, adjustments	Mil. metric tons .	-82.7	-58.6	-63.5	-59.1	-56.2	-47.3
Methane	Mil. metric tons .	719.1	701.8	639.7	638.8	630.2	612.8
Nitrous oxide	Mil. metric tons .	333.8	355.3	347.2	341.2	336.8	333.1
HFCs, PFCs, and SF	Mil. metric tons .	96.8	94.6	122.1	123.2	113.6	120.6
GAS							
Carbon dioxide	Mil. metric tons .	5,006.1	5,318.5	5,686.1	5,854.0	5,748.3	5,795.6
Methane, total	Mil. metric tons .	31.27	30.51	27.81	27.77	27.40	26.65
Nitrous oxide, total	Mil. metric tons .	1.13	1.20	1.17	1.15	1.14	1.13
HFCs, PFCs, and SF	Mil. metric tons .	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)

¹ Mixture of gases.

Source: U.S. Energy Information Administration, *Emissions of Greenhouse Gases in the United States*, Series DOE/EIA-0573(2001), annual. See also <<http://ftp.eia.doe.gov/pub/oiaf/1605/cdrom/pdf/ggrpt/057301.pdf>> (issued 20 December 2002).

No. 363. Municipal Solid Waste Generation, Recovery, and Disposal: 1980 to 2001

[In millions of tons (151.6 represents 151,600,000), except as indicated. Covers post-consumer residential and commercial solid wastes which comprise the major portion of typical municipal collections. Excludes mining, agricultural and industrial processing, demolition and construction wastes, sewage sludge, and junked autos and obsolete equipment wastes. Based on material-flows estimating procedure and wet weight as generated]

Item and material	1980	1990	1995	1998	1999	2000	2001
Waste generated	151.6	205.2	211.4	223.4	231.0	232.0	229.2
Per person per day (lb.)	3.7	4.5	4.4	4.5	4.6	4.5	4.4
Materials recovered	14.5	33.2	54.9	61.1	64.8	67.7	68.0
Per person per day (lb.)	0.35	0.7	1.1	1.2	1.3	1.3	1.3
Combustion for energy recovery	2.7	31.9	35.5	34.4	34.0	33.7	33.6
Per person per day (lb.)	0.06	0.7	0.7	0.7	0.7	0.7	0.7
Combustion without energy recovery	11.0	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)
Per person per day (lb.)	0.27	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)
Landfill, other disposal	123.4	140.1	120.9	127.1	132.1	130.6	127.6
Per person per day (lb.)	3.0	3.1	2.5	2.6	2.7	2.5	2.5
Percent distribution of generation:							
Paper and paperboard	36.4	35.4	38.6	37.7	38.2	37.4	35.7
Glass	10.0	6.4	6.1	5.7	5.6	5.4	5.5
Metals	10.2	8.1	7.5	7.5	7.7	7.8	7.9
Plastics	4.5	8.3	8.9	10.0	10.4	10.7	11.1
Rubber and leather	2.8	2.8	2.9	3.1	2.9	2.7	2.8
Textiles	1.7	2.8	3.5	3.9	3.9	4.0	4.3
Wood	4.6	6.0	4.9	5.4	5.4	5.6	5.7
Food wastes	8.6	10.1	10.3	11.2	10.9	11.2	11.4
Yard wastes	18.1	17.1	14.0	12.4	12.0	12.0	12.2
Other wastes	3.2	3.0	3.3	3.2	3.2	3.2	3.4

¹ Combustion without energy recovery is no longer available separately.

Source: Franklin Associates, a Division of ERG, Prairie Village, KS, *Municipal Solid Waste in the United States: 2001 Facts and Figures*. Prepared for the U.S. Environmental Protection Agency.

No. 364. Generation and Recovery of Selected Materials in Municipal Solid Waste: 1980 to 2001

[In millions of tons (151.6 represents 151,600,000), except as indicated. Covers post-consumer residential and commercial solid wastes which comprise the major portion of typical municipal collections. Excludes mining, agricultural and industrial processing, demolition and construction wastes, sewage sludge, and junked autos and obsolete equipment wastes. Based on material-flows estimating procedure and wet weight as generated]

Item and material	1980	1990	1995	1998	1999	2000	2001
Waste generated, total	151.6	205.2	211.4	223.4	230.9	232.0	229.2
Paper and paperboard	55.2	72.7	81.7	84.2	88.3	86.8	81.9
Ferrous metals	12.6	12.6	11.6	12.4	13.3	13.5	13.5
Aluminum	1.7	2.8	3.0	3.1	3.1	3.2	3.2
Other nonferrous metals	1.2	1.1	1.3	1.4	1.4	1.4	1.4
Glass	15.1	13.1	12.8	12.6	12.9	12.6	12.6
Plastics	6.8	17.1	18.9	22.4	24.1	24.7	25.4
Yard waste	27.5	35.0	29.7	27.7	27.7	27.7	28.0
Other wastes	31.5	50.7	52.4	59.6	60.1	62.1	63.3
Materials recovered, total	14.5	33.2	54.9	61.1	64.8	67.7	68.0
Paper and paperboard	11.9	20.2	32.7	34.4	36.1	36.7	36.7
Ferrous metals	0.4	2.2	4.1	4.3	4.5	4.6	4.6
Aluminum	0.3	1.0	0.9	0.9	0.9	0.9	0.8
Other nonferrous metals	0.5	0.7	0.8	0.9	0.9	0.9	0.9
Glass	0.8	2.6	3.1	2.9	3.0	2.7	2.4
Plastics	-	0.4	1.0	1.2	1.3	1.3	1.4
Yard waste	-	4.2	9.0	12.6	14.2	15.8	15.8
Other wastes	0.6	1.8	3.2	3.9	3.9	4.8	5.4
Percent of generation recovered, total	9.6	16.2	26.0	27.4	28.1	29.2	29.7
Paper and paperboard	21.6	27.8	40.0	40.9	40.9	42.3	44.9
Ferrous metals	3.2	17.5	35.3	34.7	33.8	34.0	33.8
Aluminum	17.6	35.7	30.0	29.0	29.0	27.4	24.5
Other nonferrous metals	41.7	63.6	61.5	64.3	64.3	66.9	64.8
Glass	5.3	19.8	24.2	23.0	23.3	21.1	19.1
Plastics	-	2.3	5.3	5.4	5.4	5.4	5.5
Yard waste	-	12.0	30.3	45.5	51.3	56.9	56.5
Other wastes	1.9	3.6	6.1	6.5	6.5	7.8	8.5

- Represents zero.

Source: Franklin Associates, a Division of ERG, Prairie Village, KS, *Municipal Solid Waste in the United States: 2001 Facts and Figures*. Prepared for the U.S. Environmental Protection Agency.

No. 365. Curbside Recycling Programs—Number and Population Served by Region: 1995 to 2001

[(121,335 represents 121,335,000). For composition of regions, see map, inside front cover]

Region	Number of programs					Population served ¹ (1,000)				
	1995	1997	1999	2000	2001	1995	1997	1999	2000	2001
Total	7,375	8,969	9,349	9,247	9,704	121,335	136,229	139,826	133,165	139,366
Northeast	2,210	3,406	3,414	3,459	3,421	37,256	43,200	43,162	43,482	43,981
South	1,281	1,344	1,581	1,427	1,677	31,521	36,952	37,914	37,510	26,496
Midwest	2,985	3,357	3,477	3,582	3,572	25,487	26,970	30,106	22,618	25,851
West	899	862	877	779	1,034	27,071	29,107	28,644	29,555	43,038

¹ Calculated using population of states reporting data.

Source: Franklin Associates, a Division of ERG, Prairie Village, KS, *Municipal Solid Waste in the United States: 2001 Facts and Figures*. Prepared for the U.S. Environmental Protection Agency. Also in *Biocycle Magazine*.

No. 366. Toxic Chemical Releases and Transfers by Media: 1988 to 2001

[In millions of pounds (3,153.7 represents 3,153,700,000), except as indicated. Based on reports filed as required by section 313 of the Emergency Planning and Community Right-to-Know Act (EPCRA, or Title III of the Superfund Amendments and Reauthorization Act of 1986), Public Law 99-499. Owners and operators of facilities that are classified within Standard Classification Code groups 20 through 39, have 10 or more full-time employees, and that manufacture, process, or otherwise uses any listed toxic chemical in quantities greater than the established threshold in the course of a calendar year are covered and required to report.]

Media	Core chemicals ¹				
	1988	1998	1999	2000	2001
Total facilities reporting	19,610	19,294	18,881	18,692	17,773
Total releases	3,153.7	1,873.0	1,709.8	1,639.0	1,435.7
On-site releases	2,760.5	1,481.8	1,307.2	1,212.7	995.8
Air emissions	2,177.8	1,017.5	863.2	802.5	649.5
Surface water	41.7	18.5	15.5	15.4	14.6
Underground injection	161.9	114.4	109.1	111.1	94.9
Releases to land	379.1	331.4	319.3	283.6	236.7
Off-site releases	393.2	391.2	402.6	426.4	439.9
Total transfers offsite for further waste management	598.0	2,482.8	2,605.6	2,613.6	2,401.4
Transfers to recycling	(NA)	1,684.2	1,796.3	1,794.2	1,624.1
Transfers to energy recovery	(NA)	437.0	472.2	485.3	447.1
Transfers to treatment	323.8	212.9	193.8	187.8	196.9
Transfers to POTW's ²	231.6	148.1	143.2	145.5	131.8
Other off-site transfers	42.6	0.7	0.1	0.9	1.5
Total production-related waste managed	(NA)	17,043.4	17,557.1	21,999.7	16,316.6
Recycled on-site	(NA)	5,820.3	5,672.6	6,643.9	5,676.7
Recycled off-site	(NA)	1,746.8	1,845.0	1,849.3	1,642.4
Energy recovery on-site	(NA)	2,467.5	2,476.2	2,521.9	2,317.6
Energy recovery off-site	(NA)	447.8	469.9	489.5	445.2
Treated on-site	(NA)	4,431.5	5,068.7	8,566.2	4,499.4
Treated off-site	(NA)	383.7	348.1	346.3	342.5
Quantity released on- and off-site	(NA)	1,745.8	1,676.5	1,582.5	1,392.9

NA Not available. ¹ Chemicals covered for all reporting years. Excludes chemicals removed from the list, those added in 1990, 1994, and 1995, and aluminum oxide, ammonia, hydrochloric acid, PBT chemicals, sulfuric acid, vanadium and vanadium compounds. ² POTW (Publicly Owned Treatment Work) is a wastewater treatment facility that is owned by a state or municipality.

No. 367. Toxic Chemical Releases by Industry: 2001

[In millions of pounds (6,158.8 represents 6,158,000,000), except as indicated. "Original Industries" include owners and operators. Covers facilities that are classified within Standard Classification Code groups 20 through 39, 10, 12, 49, 5169, 5171, and 4953/7169 that have 10 or more full-time employees, and that manufacture, process, or otherwise uses any listed toxic chemical in quantities greater than the established threshold in the course of a calendar year are covered and required to report.]

Industry	1987 SIC ¹ code	On-site release					Off-site releases/transfers to disposal	
		Total facilities (number)	Total on and off-site releases	Air emissions	Surface water discharges	Other ²		
Total ³	(X)	24,896	6,158.0	5,580.3	1,679.4	220.8	3,680.1	577.7
Metal mining	10	89	2,782.6	2,782.0	2.9	0.4	2,778.7	0.5
Coal mining	12	88	16.1	16.1	0.8	0.8	14.6	-
Food and kindred products	20	1,688	125.1	118.9	56.1	55.2	7.6	6.2
Tobacco products	21	31	3.6	3.2	2.5	0.5	0.2	0.3
Textile mill products	22	289	7.0	6.2	5.7	0.2	0.3	0.7
Apparel and other textile products	23	16	0.4	0.3	0.3	-	-	0.1
Lumber and wood products	24	1,006	31.4	30.9	30.5	-	0.4	0.5
Furniture and fixtures	25	282	8.0	7.8	7.8	-	-	0.2
Paper and allied products	26	507	195.7	189.9	157.2	16.5	16.2	5.8
Printing and publishing	27	231	19.7	19.3	19.3	-	-	0.4
Chemical and allied products	28	3,618	582.6	501.3	227.8	57.6	215.9	81.3
Petroleum and coal products	29	542	71.4	68.1	48.2	17.1	2.8	3.3
Rubber and misc. plastic products	30	1,822	88.5	78.1	77.1	0.1	0.9	10.5
Leather and leather products	31	60	2.6	1.3	1.2	0.1	-	1.3
Stone, clay, glass products	32	1,027	40.5	35.4	31.3	0.2	4.0	5.1
Primary metal industries	33	1,941	558.6	286.8	57.6	44.7	184.5	271.8
Fabricated metals products	34	2,959	64.0	42.8	40.4	1.7	0.6	21.2
Industrial machinery and equipment	35	1,143	15.4	10.7	8.3	-	2.5	4.6
Electronic, electric equipment	36	1,831	23.9	16.4	12.7	2.9	0.7	7.6
Transportation equipment	37	1,348	80.6	67.7	66.7	0.2	0.8	13.0
Instruments and related products	38	375	9.4	8.6	7.2	1.4	-	0.8
Miscellaneous	39	312	8.4	6.8	6.8	-	-	1.6
Electric utilities	49	732	1,062.2	989.2	717.6	3.5	268.1	73.1
Chemical wholesalers	5169	475	1.5	1.3	1.3	-	-	0.2
Petroleum bulk terminals	5171	596	21.3	21.2	21.2	-	-	0.2
RCRA/solvent recovery	4953/7369	223	219.9	168.4	1.0	-	167.4	51.4

- Represents or rounds to zero. X Not applicable. ¹ Standard Industrial Classification, see text, Section 12, Labor Force. ² Includes underground injection for Class I and Class II to V wells and land releases. ³ Includes industries with no specific industry identified, not shown separately.

Source of Tables 366 and 367: U.S. Environmental Protection Agency, *Toxics Release Inventory*, annual.

No. 368. Toxic Chemical Releases by State: 1988 to 2001

[In millions of pounds (3,153.7 represents 3,153,700,000). Excludes delisted chemicals, chemicals added in 1990, 1994, and 1995, and aluminum oxide, ammonia, hydrochloric acid, PBT chemicals, sulfuric acid, vanadium, and vanadium compounds. See headnote, Table 366]

State and outlying area	Core chemicals				State and outlying area	Core chemicals					
	1988	1998	1999	2000		2001	1988	1998	1999	2000	2001
Total	3,153.7	1,873.0	1,709.8	1,639.0	1,435.7	Montana	33.5	44.2	45.7	46.6	18.2
United States	3,138.3	1,865.5	1,704.2	1,633.3	1,430.1	Nebraska	16.7	9.9	8.6	10.3	12.2
Alabama	109.5	75.9	73.6	66.7	61.0	Nevada	2.3	3.7	5.4	4.1	3.2
Alaska	3.7	0.3	0.2	0.3	0.5	New Hampshire	13.8	2.3	2.4	2.3	1.2
Arizona	61.5	50.9	47.7	38.7	52.7	New Jersey	46.7	11.3	11.3	11.3	26.8
Arkansas	40.8	38.6	38.8	44.8	33.5	New Mexico	29.3	23.3	19.6	0.5	0.6
California	107.9	23.9	23.2	23.4	16.7	New York	98.5	21.7	18.8	17.5	13.6
Colorado	15.4	3.1	3.0	2.8	2.5	North Carolina	124.0	49.2	46.7	40.8	35.8
Connecticut	37.9	6.0	4.5	4.5	3.6	North Dakota	1.2	1.2	1.1	0.8	0.9
Delaware	8.7	5.8	5.2	5.6	5.2	Ohio	200.2	125.8	116.1	108.4	90.5
DC	-	(Z)	(Z)	(Z)	0.0	Oklahoma	30.5	13.9	13.6	13.6	12.3
Florida	32.7	30.5	29.5	31.8	26.3	Oregon	21.2	27.3	24.9	24.0	21.9
Georgia	85.2	47.5	46.4	44.8	35.3	Pennsylvania	133.7	82.6	81.3	88.0	97.5
Hawaii	0.8	0.3	0.3	0.4	0.4	Rhode Island	7.8	1.6	1.2	1.1	0.9
Idaho	7.3	12.7	14.6	13.0	8.6	South Carolina	65.8	50.2	55.8	51.6	52.0
Illinois	137.6	82.4	79.3	77.2	67.8	South Dakota	2.4	1.4	1.1	1.2	1.1
Indiana	181.0	190.8	109.7	104.0	106.5	Tennessee	126.0	84.8	88.5	81.2	62.8
Iowa	42.3	24.4	25.0	24.8	19.2	Texas	317.8	172.8	169.0	150.9	130.2
Kansas	30.2	17.5	20.1	16.8	12.8	Utah	122.2	93.3	77.2	101.5	48.4
Kentucky	64.7	31.1	31.1	27.8	28.6	Vermont	1.7	0.2	0.2	0.1	0.1
Louisiana	128.7	91.6	78.9	80.0	70.3	Virginia	112.2	39.6	39.4	34.6	31.6
Maine	15.5	6.6	5.9	6.3	5.0	Washington	30.5	24.1	17.3	16.6	11.7
Maryland	19.6	8.7	9.2	10.6	7.7	West Virginia	39.3	16.3	11.8	10.2	9.0
Massachusetts	32.1	6.5	4.9	4.8	4.5	Wisconsin	61.1	33.7	31.7	29.0	25.5
Michigan	139.2	73.0	63.6	52.4	59.9	Wyoming	2.0	1.2	1.3	1.2	0.8
Minnesota	55.3	14.6	14.3	15.3	13.5	American Samoa	-	-	-	-	-
Mississippi	58.5	42.7	41.5	43.1	36.3	Guam	-	-	-	-	-
Missouri	82.2	44.3	43.4	46.0	43.0	Puerto Rico	12.9	6.6	5.2	5.3	4.8
						Virgin Island	2.6	0.9	0.5	0.4	0.8

- Represents zero. Z Less than 50,000.

Source: U.S. Environmental Protection Agency, *Toxics Release Inventory*, annual. See also <<http://www.epa.gov/tri/tri00/pdr/2000pdr.pdf>> (released May 2002).

No. 369. Hazardous Waste Sites on the National Priority List by State and Outlying Area: 2003

[As of December 31. Includes both proposed and final sites listed on the National Priorities List for the Superfund program as authorized by the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 and the Superfund Amendments and Reauthorization Act of 1986]

State and outlying area	Total sites	Rank	Percent distribution	Federal	Non-Federal	State and outlying area	Total sites	Rank	Percent distribution	Federal	Non-Federal
United States	1,283	(X)	100.0	163	1,120	Nebraska	11	38	0.9	1	10
Alabama	15	24	1.2	3	12	Nevada	1	49	0.1	-	1
Alaska	6	44	0.5	5	1	New Hampshire	20	19	1.6	1	19
Arizona	9	40	0.7	2	7	New Jersey	116	1	9.0	8	108
Arkansas	11	37	0.9	-	11	New Mexico	12	34	0.9	1	11
California	98	2	7.6	24	74	New York	91	4	7.1	4	87
Colorado	18	22	1.4	3	15	North Carolina	29	15	2.3	2	27
Connecticut	16	23	1.2	1	15	North Dakota	-	50	-	-	-
Delaware	15	24	1.2	1	14	Ohio	35	11	2.7	5	30
District of Columbia	1	(X)	0.1	1	-	Oklahoma	11	39	0.9	1	10
Florida	52	6	4.1	6	46	Oregon	12	35	0.9	2	10
Georgia	15	24	1.2	2	13	Pennsylvania	95	3	7.4	6	89
Hawaii	3	46	0.2	2	1	Rhode Island	12	36	0.9	2	10
Idaho	9	41	0.7	2	7	South Carolina	25	17	1.9	2	23
Illinois	45	8	3.5	5	40	South Dakota	2	47	0.2	1	1
Indiana	29	14	2.3	-	29	Tennessee	13	31	1.0	4	9
Iowa	14	29	1.1	1	13	Texas	45	9	3.5	4	41
Kansas	12	32	0.9	2	10	Utah	19	21	1.5	4	15
Kentucky	14	30	1.1	1	13	Vermont	9	42	0.7	-	9
Louisiana	15	24	1.2	1	14	Virginia	30	13	2.3	11	19
Maine	12	33	0.9	3	9	Washington	47	7	3.7	14	33
Maryland	19	20	1.5	9	10	West Virginia	9	43	0.7	2	7
Massachusetts	32	12	2.5	7	25	Wisconsin	40	10	3.1	-	40
Michigan	69	5	5.4	1	68	Wyoming	2	47	0.2	1	1
Minnesota	24	18	1.9	2	22	Guam	2	(X)	(X)	1	1
Mississippi	4	45	0.3	-	4	Puerto Rico	9	(X)	(X)	-	9
Missouri	25	16	1.9	3	22	Virgin Islands	2	(X)	(X)	-	2

- Represents zero.

Source: U.S. Environmental Protection Agency, *Supplementary Materials: National Priorities List, Proposed Rule*, December 2003.

No. 370. Pollution Abatement Capital Expenditures and Operating Costs by Media and Industry: 1999

[In millions of dollars. (5,809.9 represents 5,809,900,000). Based on probability sample of about 21,000 manufacturing, mining, and electric utility plants. Pollution abatement is the reduction of elimination of pollution that is created by the production process and has the potential to produce undesirable environmental and/or health effects. Capital expenditures include installation and retrofit that occurred for separately identifiable methods, techniques, or process technologies installed exclusively for the purpose of removing pollutants. Operating costs include all costs for operating and maintaining all pollution abatement technology]

Industry	NAICS code	Pollution abatement capital expenditures				Pollution abatement operating costs			
		Total ²	Air	Water	Solid waste	Total ²	Air	Water	Solid waste
All industries	(X)	5,809.9	3,463.7	1,801.9	361.9	11,864.4	5,069.1	4,586.5	2,013.3
Mining	21	277.3	79.0	157.8	36.9	458.9	180.7	208.8	67.1
Oil & gas extraction	211	116.2	20.6	63.5	32.1	146.9	58.2	72.1	16.0
Mining (except oil & gas)	212	159.5	57.6	93.6	4.7	305.1	121.8	131.5	50.2
Support activities for mining	213	1.6	0.8	0.7	0.1	6.9	0.7	5.3	0.8
Electric power generation	22111	1,145.1	1,071.1	55.1	17.1	1,163.8	910.1	99.9	127.1
Manufacturing	31-33	4,387.3	2,313.4	1,588.9	307.9	10,240.3	3,977.5	4,277.4	1,818.8
Food	311	369.9	70.1	281.0	18.5	924.3	105.2	699.3	113.9
Beverage and tobacco product	312	17.1	4.4	9.0	3.5	66.1	12.2	47.4	(D)
Textile mills	313	37.1	21.3	7.5	8.2	105.0	18.6	72.4	13.6
Textile product mills	314	7.2	(D)	(D)	(D)	4.9	(D)	2.4	(D)
Apparel	315	(Z)	(D)	(D)	(D)	1.8	(D)	1.3	(D)
Leather and allied product	316	7.3	(D)	6.4	(D)	19.6	(D)	14.5	3.5
Wood product	321	82.1	65.6	12.3	3.9	134.9	86.3	26.2	19.7
Paper	322	611.9	252.8	261.3	25.5	945.6	264.4	462.0	190.6
Printing and related support activities	323	35.2	31.4	2.4	1.3	80.3	56.0	8.2	15.2
Petroleum and coal products	324	488.1	349.0	104.1	23.8	1,697.9	1,206.2	344.1	136.1
Chemicals	325	990.9	488.2	335.4	133.9	2,808.0	829.3	1,289.7	633.2
Plastics and rubber products	326	102.6	92.0	5.7	4.7	164.7	86.0	30.3	46.8
Nonmetallic mineral product	327	232.6	195.1	16.2	20.1	281.5	154.6	50.2	61.7
Primary metal	331	605.7	481.2	93.6	22.8	1,543.9	755.5	571.8	205.0
Fabricated metal product	332	283.3	38.2	232.4	9.7	405.3	89.2	167.2	137.0
Machinery	333	163.3	26.3	92.5	3.0	97.7	25.6	41.2	28.8
Computer and electronic product	334	138.0	58.5	67.5	11.7	325.4	59.5	208.6	50.6
Elect. equip., appliance, & component	335	33.7	20.8	10.6	2.2	97.0	40.7	32.2	22.7
Transportation equipment	336	134.7	74.8	46.4	11.0	454.4	152.0	190.6	104.1
Furniture and related product	337	35.0	31.3	(D)	1.8	39.1	17.7	7.0	13.6
Miscellaneous	339	11.5	5.5	3.9	1.4	42.8	16.5	10.8	13.6

Z Less than \$50,000. D Withheld to avoid disclosing data for individual companies. ¹ North American Industry Classification System, 1997; see text, Section 15. ² Includes expenditures and cost for multimedia, not shown separately.

No. 371. Pollution Abatement Capital Expenditures and Operating Costs by State: 1999

[Represents based on probability sample of about 21,000 manufacturing, mining, and electric utility plants. Pollution abatement is the reduction of elimination of pollution that is created by the production process and has the potential to produce undesirable environmental and/or health effects. Capital expenditures include installation and retrofit that occurred for separately identifiable methods, techniques, or process technologies installed exclusively for the purpose of removing pollutants. Operating costs include all costs for operating and maintaining all pollution abatement technology]

State	Pollution abatement capital expenditures			Pollution abatement operating costs		State	Pollution abatement capital expenditures			Pollution abatement operating costs	
	Expenditures, total (mil. dol.)	Percent for air pollutants	Percent for hazardous materials	Expenditures, total (mil. dol.)	Percent for air pollutants		Expenditures, total (mil. dol.)	Percent for air pollutants	Percent for hazardous materials	Expenditures, total (mil. dol.)	Percent for air pollutants
US ¹	5,809.9	59.6	22.6	11,864.4	42.7						
AL	166.0	66.4	25.1	263.0	36.6	MT	4.6	87.0	-	21.3	55.4
AK	63.7	17.4	0.2	34.4	37.8	NE	18.5	53.0	20.0	39.5	17.2
AZ	58.4	67.8	68.0	70.9	61.4	NV	11.0	57.3	57.7	44.9	47.9
AR	91.9	31.1	12.3	183.8	36.5	NH	204.6	0.4	0.3	35.6	21.6
CA	253.5	46.2	16.8	830.1	55.8	NJ	57.0	78.4	24.6	165.1	32.1
CO	19.9	37.2	21.6	49.9	33.3	NM	29.4	44.2	25.5	100.7	60.3
CT	45.7	50.5	54.3	53.0	18.5	NY	160.6	76.6	78.3	310.0	51.3
DE	87.0	96.6	5.6	88.8	58.8	NC	58.4	66.1	45.2	267.7	32.4
FL	127.0	29.8	15.0	410.2	58.8	ND	17.2	79.7	1.2	64.4	70.0
GA	210.8	46.7	26.9	241.0	31.2	OH	271.5	57.3	11.6	947.9	57.2
HI	12.5	16.0	-	5.0	28.0	OK	34.0	90.6	44.1	78.8	42.3
ID	16.9	36.1	17.8	54.4	28.5	OR	61.3	45.2	8.6	80.0	44.3
IL	172.2	43.5	19.0	511.5	36.1	PA	422.2	87.1	7.2	534.0	39.6
IN	128.5	76.3	44.6	638.4	43.6	RI	3.1	22.6	74.2	9.4	(D)
IA	42.5	46.8	3.1	138.0	26.7	SC	382.7	92.7	6.3	224.9	38.3
KS	40.8	54.2	36.5	145.7	9.7	SD	3.0	36.7	3.3	8.0	27.5
KY	145.5	69.5	33.8	259.8	40.9	TN	156.6	63.5	11.0	331.6	30.4
LA	228.8	43.6	29.9	522.7	39.7	TX	617.6	58.0	38.3	1,679.2	45.9
ME	30.2	8.6	0.7	59.2	22.0	UT	21.0	79.0	19.5	55.5	48.5
MD	89.4	78.7	6.0	118.5	31.5	VT	28.5	54.7	22.5	10.9	(D)
MA	63.6	54.4	52.5	133.4	23.8	VA	114.1	51.5	8.9	318.5	46.0
MI	160.1	62.3	23.2	394.0	35.0	WA	144.5	71.5	13.4	254.9	42.4
MN	120.4	41.8	14.4	293.6	44.2	WV	107.9	76.8	26.4	205.6	28.6
MS	71.9	43.4	6.0	151.1	46.9	WI	163.1	18.4	5.5	196.0	16.8
MO	209.4	84.5	54.7	180.0	45.1	WY	60.8	98.2	-	41.6	68.8

- Represents zero. D Withheld to avoid disclosing data for individual companies. ¹ Includes offshore, not shown separately.

Source of Tables 370 and 371: U.S. Census Bureau, Current Industrial Reports, *Pollution Abatement Costs and Expenditures: 1999*, Series MA200(99).

No. 372. Environmental Industry—Revenues and Employment, by Industry Segment: 1990 to 2003

[150.7 represents \$150,700,000,000. Covers approximately 59,000 private and public companies engaged in environmental activities]

Industry segment	Revenue (bil. dol.)				Employment (1,000)			
	1990	1995	2000	2003	1990	1995	2000	2003
Industry total	150.7	183.7	211.0	227.3	1,215.2	1,382.8	1,471.3	1,491.6
Analytical services ¹	2.1	1.8	1.8	1.8	24.1	21.2	20.2	19.9
Wastewater treatment works ²	19.8	23.4	27.8	30.4	88.8	101.5	114.8	120.4
Solid waste management ³	26.1	32.5	39.4	43.2	205.5	243.4	266.3	276.0
Hazardous waste management	6.3	6.2	5.1	4.5	53.8	52.5	41.8	38.3
Remediation/industrial services	11.1	11.0	11.5	12.4	133.5	125.2	113.9	112.0
Consulting and engineering	12.5	15.5	17.4	19.1	147.1	180.3	184.0	190.4
Water equipment and chemicals	13.5	16.5	19.8	21.4	92.7	110.3	130.5	133.5
Instrument manufacturing	2.0	3.0	3.6	4.0	18.0	26.2	29.4	30.5
Air pollution control equipment ⁵	11.1	15.3	19.1	18.5	81.5	109.1	129.6	127.2
Waste management equipment ⁶	8.7	9.8	9.9	9.8	69.6	75.5	74.6	70.4
Process and prevention technology	0.4	0.8	1.2	1.4	9.3	19.5	29.0	27.1
Water utilities ⁷	19.8	25.3	29.9	32.6	98.5	118.2	130.0	135.0
Resource recovery ⁸	13.1	16.9	16.0	15.3	142.9	136.0	127.2	114.5
Clean energy systems and power.	4.3	5.6	8.6	13.0	49.9	63.9	80.0	96.4

¹ Covers environmental laboratory testing and services. ² Mostly revenues collected by municipal entities. ³ Covers such activities as collection, transportation, transfer stations, disposal, landfill ownership and management for solid waste. ⁴ Transportation and disposal of hazardous, medical and nuclear waste. ⁵ Includes stationary and mobile sources. ⁶ Includes vehicles, containers, liners, processing and remediation equipment. ⁷ Revenues generated from the sale of water. ⁸ Revenues generated from the sale of recovered metals, paper, plastic, etc.

Source: Environmental Business International, Inc., San Diego, CA, *Environmental Business Journal*, monthly (copyright).

No. 373. Threatened and Endangered Wildlife and Plant Species—Number: 2004

[As of April. Endangered species: One in danger of becoming extinct throughout all or a significant part of its natural range. Threatened species: One likely to become endangered in the foreseeable future]

Item	Mammals	Birds	Reptiles	Amphibians	Fishes	Snails	Clams	Crustaceans	Insects	Arachnids	Plants
Total listings	346	272	115	30	125	33	72	21	48	12	747
Endangered species, total	320	252	78	20	82	22	64	18	39	12	598
United States	69	77	14	12	71	21	62	18	35	12	597
Foreign	251	175	64	8	11	1	2	-	4	-	1
Threatened species, total	26	20	37	10	43	11	8	3	9	-	149
United States	9	14	22	9	43	11	8	3	9	-	147
Foreign	17	6	15	1	-	-	-	-	-	-	2

- Represents zero

Source: U.S. Fish and Wildlife Service, *Endangered Species Bulletin*, bimonthly; and <<http://ecos.fws.gov/tesspublic/TESSBoxscore>> (released 14 April 2004).

No. 374. Tornadoes, Floods, Tropical Storms, and Lightning: 1993 to 2003

Weather type	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003, prel.
Tornadoes: ¹											
Lives lost	33	69	30	26	67	130	94	41	40	55	54
Injuries	(NA)	(NA)	650	705	1,033	1,868	1,842	882	743	968	1,087
Property loss (mil. dol.)	(NA)	(NA)	410.8	719.6	730.7	1,714.2	1,989.9	423.6	630.1	801.3	1,263.2
Floods and flash floods:											
Lives lost	103	91	80	131	118	136	68	38	48	49	85
Injuries	(NA)	(NA)	57	95	525	6,440	301	47	277	88	65
Property loss (mil. dol.)	(NA)	(NA)	1,250.5	2,120.7	6,910.6	2,324.8	1,420.7	1,255.1	1,220.3	655.0	2,540.9
North Atlantic tropical storms and hurricanes: ²											
Number of hurricanes reaching U.S. mainland	8	7	19	13	7	14	12	15	15	12	(NA)
Direct deaths on U.S. mainland	1	-	2	2	1	3	3	-	-	1	(NA)
Property loss in U.S. (mil.dol.)	2	9	17	37	1	9	19	-	24	51	14
Total	57.0	973.0	5,932.3	1,436.1	667.6	3,546.6	4,190.1	8.1	5,187.8	1,104.4	1,879.5
Lightning:											
Deaths	43	69	85	52	42	44	46	51	44	51	44
Injuries	295	577	433	309	306	283	243	364	371	256	237

- Represents zero. NA Not available. ¹ Source: U.S. National Weather Service, Internet site <<http://www.spc.noaa.gov/climo/torn/monthlytornstats.html>> (accessed 14 April 2004). A violent, rotating column of air descending from a cumulonimbus cloud in the form of a tubular- or funnel-shaped cloud, usually characterized by movements along a narrow path and wind speeds from 100 to over 300 miles per hour. Also known as a "twister" or "waterspout." ² Source: National Hurricane Center (NHC), Coral Gables, FL, unpublished data. For data on individual hurricanes, see the NHC web site at <<http://www.nhc.noaa.gov/>>. Tropical storms have winds of 39 to 73 miles per hour; hurricanes have winds of 74 miles per hour or higher.

Source: Except as noted, U.S. National Oceanic and Atmospheric Administration (NOAA), *Storm Data*, monthly. See also NOAA website at <<http://www.nws.noaa.gov/om/hazstats.shtml>> and <<http://www.nws.noaa.gov/om/severeweather/sum03.pdf>> (released 03 March 2004).

No. 375. Major U.S. Weather Disasters: 1990 to 2003

[5.0 represents \$5,000,000,000. Covers only weather related disasters costing \$1 billion or more]

Event	Description	Time period	Estimated cost	Deaths
			(bil. dol.)	
Southern California wildfires	Dry weather, high winds, and resulting wildfires in southern CA burned 743,000 acres & destroyed 3700 homes	Oct.-early Nov. 2003	2.5	22
Hurricane Isabel	Category 2 hurricane makes landfall in eastern NC, causing damage along coasts of NC, VA, and MD with wind damage and flooding in NC, VA, MD, DE, WV, NJ, NY and PA.	September 2003	over 4	47
Midwest severe storms and tornadoes	Numerous tornadoes over the midwest, MS River valley, and OH/TN River valleys with record 400 tornadoes in one week	Early May 2003	over 3.1	41
Storms and hail	Sever storms and large hail over southern plains, lower MS River valley, and TX	Early April 2003	over 1.6	-
Widespread drought	Moderate to extreme drought over large portions of 30 states	Spring to fall 2002	over 10	-
Western fire season	Major fires over 11 western states from Rockies to west coast	Spring to fall 2002	over 2	21
Tropical Storm Allison	Tropical storm produced rainfall and severe flooding in coastal portions of TX & LA & damage in MS, FL, VA, and PA	June 2001	5.0	43
Midwest and Ohio Valley hail and tornadoes	Storms, tornadoes, and hail in TX, OK, KS, NE, IA, MO, IL, IN, WI, MI, OH, KY, and PA	April 2001	1.7	3
Southern drought/heat wave	Severe drought and heat over south-central and southeast states cause significant losses in agriculture and related industries	Spring-summer 2000	over 4.0	140
Western fire season	Severe fire season in western states	Spring-summer 2000	over 2.0	-
Hurricane Floyd	Category 2 hurricane in NC, causing severe flooding in NC and some flooding in SC, VA, MD, PA, NY, NJ, DE, RI, CT, MA, and VT	September 1999	6.0	75
Drought/heat wave	Drought/heatwave over eastern U.S.	Summer 1999	1.0	256
Oklahoma-Kansas tornadoes	Category F4-F5 tornados hit OK, KS, TX, and TN	May 1999	1.0	55
Arkansas-Tennessee tornados	Two outbreaks of tornadoes in 6-day period	January 1999	1.3	31
Texas flooding	Severe flooding in southeast Texas from 2 heavy rain events with 10-20 in. totals	Oct.-Nov. 1998	1.0	31
Hurricane Georges	Category 2 hurricane in Puerto Rico, Florida Keys, and Gulf coasts of LA, MS, AL, and FL	September 1998	3-4	16
Hurricane Bonnie	Category 3 hurricane in eastern NC and VA	August 1998	1.0	2
Southern drought/heat wave	Severe drought and heat wave from TX/OK to the Carolinas	Summer 1998	6.0	200
Minnesota severe storms/hail	Very damaging severe thunderstorms with large hail over wide areas of Minnesota	May 1998	1.5	1
Southeast severe weather	Tornadoes and flooding related to strong El Nino in the southeast	Winter/Spring 1998	1.0	Over 130
Northeast ice storm	Intense ice storm hits ME, NH, VT, and NY	January 1998	1.4	16
Northern plains flooding	Severe flooding in Dakotas and Minnesota due to heavy spring snowmelt	April-May 1997	2.0	11
MS and OH valleys flooding and tornadoes	Tornadoes and severe flooding hit the states of AR, MO, MS, TN, IL, IN, KY, OH, and WV	March 1997	1.0	67
West Coast flooding	Flooding from rains and snowmelt in CA, WA, OR, ID, NV, & MT	Dec. 1996-Jan. 1997	2-3	36
Hurricane Fran	Category 3 hurricane in NC and VA	Sept. 1996	5.0	37
Southern Plains severe drought	Drought in agricultural areas of TX & OK	Fall 1995-summer 1996	Over 4	(NA)
Pacific Northwest severe flooding	Flooding from heavy rain & snowmelt in OR, WA, ID, and MT.	Feb. 1996	1.0	9
Blizzard of '96 followed by flooding	Heavy snowstorm followed by severe flooding in Appalachians, Mid-Atlantic, and Northeast	Jan. 1996	3.0	187
Hurricane Opal	Category 3 hurricane in FL, AL, parts of GA, TN, & Carolinas.	Oct. 1995	Over 3	27
Hurricane Marilyn	Category 2 hurricane in Virgin Islands	Sept. 1995	2.1	13
TX/OK/LA/MS severe weather and flooding	Flooding, hail, & tornadoes across TX, OK, parts of LA, MS, Dallas & New Orleans hardest hit	May 1995	5-6	32
California flooding	Flooding from frequent winter storms across much of CA	Jan.-Mar. 1995	3.0	27
Western Fire Season	Severe fire season in western states due to dry weather	Summer-Fall 1994	1.0	(NA)
Texas flooding	Flooding from torrential rain & thunderstorms across southeast TX	Oct. 1994	1.0	19
Tropical Storm Alberto	Flooding due to 10 to 25 inch rain across GA, AL, part of FL	July 1994	1.0	32
Southeast ice storm	Intense ice storm in pts of TX, OK, AR, LA, MS, AL, TN, GA, SC, NC, & VA	Feb. 1994	3.0	9
California wildfires	Out-of-control wildfires over southern CA	Fall 1993	1.0	4
Midwest flooding	Extreme flooding across central U.S.	Summer 1993	15-20	48
Drought/heat wave	Extreme drought/heatwave across southeastern U.S.	Summer 1993	1.0	(NA)
Storm/blizzard	"Storm of the Century" hits entire eastern seaboard	Mar. 1993	3-6	270
Nor'easter of 1992	Slow-moving storm batters northeast U.S. coast, New England.	Dec. 1992	1-2	19
Hurricane Iniki	Category 4 hurricane hit Hawaiian island of Kauai	Sept. 1992	1.8	7
Hurricane Andrew	Category 4 hurricane hit FL & LA	Aug. 1992	27.0	58
Oakland Firestorm	Oakland, CA firestorm due to low humidity & high winds	Oct. 1991	1.5	25
Hurricane Bob	Category 2 hurricane—mainly coastal NC, Long Island, & New England	Aug. 1991	1.5	18
TX/OK/LA/AR Flooding	Torrential rains cause flooding along Trinity, Red, and Arkansas rivers	May 1990	1.0	13

- Represents zero. NA Not available or not reported. \$del

Source: U.S. National Oceanic and Atmospheric Administration, National Climatic Data Center, "Billion Dollar U.S. Weather Disasters, 1980-2003" (release date: March 2, 2004). See also <<http://www.ncdc.noaa.gov/oa/reports/billionz.html#TOP>> (released 02 March 2004).

No. 376. Highest and Lowest Temperatures by State Through 2000

State	Highest temperatures			Lowest temperatures		
	Station	Temperature (F)	Date	Station	Temperature (F)	Date
U.S.	Greenland Ranch, CA . .	134	Jul. 10, 1913	Prospect Creek, AK . . .	-80	Jan. 23, 1971
AL	Centerville	112	Sep. 5, 1925	New Market	-27	Jan. 30, 1966
AK	Fort Yukon	100	¹ Jun. 27, 1915	Prospect Creek Camp . .	-80	Jan. 23, 1971
AZ	Lake Havasu City	128	Jun. 29, 1994	Hawley Lake	-40	Jan. 7, 1971
AR	Ozark	120	Aug. 10, 1936	Pond	-29	Feb. 13, 1905
CA	Greenland Ranch	134	Jul. 10, 1913	Boca	-45	Jan. 20, 1937
CO	Bennett	118	Jul. 11, 1888	Maybell	-61	Feb. 1, 1985
CT	Danbury	106	Jul. 15, 1995	Falls Village	-32	Feb. 16, 1943
DE	Millsboro	110	Jul. 21, 1930	Millsboro	-17	Jan. 17, 1893
FL	Monticello	109	Jun. 29, 1931	Tallahassee	-2	Feb. 13, 1899
GA	Greenville	112	Aug. 20, 1983	CCC Camp F-16	-17	¹ Jan. 27, 1940
HI	Pahala	100	Apr. 27, 1931	Mauna Kea Obs. 111.2 . .	12	May 17, 1979
ID	Orofino	118	Jul. 28, 1934	Island Park Dam	-60	Jan. 18, 1943
IL	East St. Louis	117	Jul. 14, 1954	Congerville	-36	Jan. 5, 1999
IN	Collegeville	116	Jul. 14, 1936	New Whiteland	-36	Jan. 19, 1994
IA	Keokuk	118	Jul. 20, 1934	Elkader	-47	² Feb. 3, 1996
KS	Alton (near)	121	² Jul. 24, 1936	Lebanon	-40	Feb. 13, 1905
KY	Greensburg	114	Jul. 28, 1930	Shelbyville	-37	Jan. 19, 1994
LA	Plain Dealing	114	Aug. 10, 1936	Minden	-16	Feb. 13, 1899
ME	North Bridgton	105	² Jul. 10, 1911	Van Buren	-48	Jan. 19, 1925
MD	Cumberland & Frederick .	109	² Jul. 10, 1936	Oakland	-40	Jan. 13, 1912
MA	New Bedford & Chester . .	107	Aug. 2, 1975	Chester	-35	Jan. 12, 1981
MI	Mio	112	Jul. 13, 1936	Vanderbilt	-51	Feb. 9, 1934
MN	Moorhead	114	² Jul. 6, 1936	Tower	-60	Feb. 2, 1996
MS	Holly Springs	115	Jul. 29, 1930	Corinth	-19	Jan. 30, 1966
MO	Warsaw & Union	118	² Jul. 14, 1954	Warsaw	-40	Feb. 13, 1905
MT	Medicine Lake	117	Jul. 5, 1937	Rogers Pass	-70	Jan. 20, 1954
NE	Minden	118	² Jul. 24, 1936	Camp Clarke	-47	Feb. 12, 1899
NV	Laughlin	125	Jun. 29, 1994	San Jacinto	-50	Jan. 8, 1937
NH	Nashua	106	Jul. 4, 1911	Mt. Washington	-47	Jan. 29, 1934
NJ	Runyon	110	Jul. 10, 1936	River Vale	-34	Jan. 5, 1904
NM	Waste Isolat Pilot Plt . . .	122	Jun. 27, 1994	Gavilan	-50	Feb. 1, 1951
NY	Troy	108	Jul. 22, 1926	Old Forge	-52	² Feb. 18, 1979
NC	Fayetteville	110	Aug. 21, 1983	Mt. Mitchell	-34	Jan. 21, 1985
ND	Steele	121	Jul. 6, 1936	Parshall	-60	Feb. 15, 1936
OH	Gallipolis (near)	113	² Jul. 21, 1934	Milligan	-39	Feb. 10, 1899
OK	Tipton	120	² Jun. 27, 1994	Watts	-27	Jan. 18, 1930
OR	Pendleton	119	Aug. 10, 1898	Seneca	-54	² Feb. 10, 1933
PA	Phoenixville	111	² Jul. 10, 1936	Smethport	-42	¹ Jan. 5, 1904
RI	Providence	104	Aug. 2, 1975	Kingston	-23	Jan. 11, 1942
SC	Camden	111	² Jun. 28, 1954	Caesars Head	-19	Jan. 21, 1985
SD	Gannvalley	120	Jul. 5, 1936	McIntosh	-58	Feb. 17, 1936
TN	Perryville	113	² Aug. 9, 1930	Mountain City	-32	Dec. 30, 1917
TX	Seymour	120	Aug. 12, 1936	Seminole	-23	² Feb. 8, 1933
UT	Saint George	117	Jul. 5, 1985	Peter's Sink	-69	Feb. 1, 1985
VT	Vernon	105	Jul. 4, 1911	Bloomfield	-50	Dec. 30, 1933
VA	Balcony Falls	110	Jul. 15, 1954	Mtn. Lake Bio. Stn. . . .	-30	Jan. 22, 1985
WA	Ice Harbor Dam	118	² Aug. 5, 1961	Mazama & Winthrop . . .	-48	Dec. 30, 1968
WV	Martinsburg	112	² Jul. 10, 1936	Lewisburg	-37	Dec. 30, 1917
WI	Wisconsin Dells	114	Jul. 13, 1936	Couderay	-55	Feb. 4, 1996
WY	Basin	114	Jul. 12, 1900	Riverside R.S.	-66	Feb. 9, 1933

¹ Estimated. ² Also on earlier dates at the same or other places.

Source: U.S. National Oceanic and Atmospheric Administration, <<http://www.lwf.ncdc.noaa.gov/oa/climate/severeweather/temperatures.html>> (released 25 April 2002).

No. 377. Normal Daily Mean, Maximum, and Minimum Temperatures—Selected Cities

[In Fahrenheit degrees. Airport data except as noted. Based on standard 30-year period, 1971 through 2000]

State	Station	Daily mean temperature			Daily maximum temperature			Daily minimum temperature		
		Jan.	July	Annual average	Jan.	July	Annual average	Jan.	July	Annual average
AL	Mobile	50.1	81.5	66.8	60.7	91.2	77.4	39.5	71.8	56.2
AK	Juneau	25.7	56.8	41.5	30.6	64.3	47.6	20.7	49.2	35.3
AZ	Phoenix	54.2	92.8	72.9	65.0	104.2	84.5	43.4	81.4	61.1
AR	Little Rock	40.1	82.4	62.1	49.5	92.8	72.7	30.8	72.0	51.5
CA	Los Angeles	57.1	69.3	63.3	65.6	75.3	70.6	48.6	63.3	56.1
	Sacramento	46.3	75.4	61.1	53.8	92.4	73.7	38.8	58.3	48.4
	San Diego	57.8	70.9	64.4	65.8	75.8	70.8	49.7	65.9	58.1
	San Francisco	49.4	62.8	57.3	55.9	71.1	65.1	42.9	54.5	49.6
CO	Denver	29.2	73.4	50.1	43.2	88.0	64.2	15.2	58.7	35.8
CT	Hartford	25.7	73.7	50.2	34.1	84.9	60.5	17.2	62.4	40.0
DE	Wilmington	31.5	76.6	54.4	39.3	86.0	63.6	23.7	67.3	45.1
DC	Washington	34.9	79.2	57.5	42.5	88.3	66.4	27.3	70.1	48.6
FL	Jacksonville	53.1	81.6	68.0	64.2	90.8	78.4	41.9	72.4	57.6
	Miami	68.1	83.7	76.7	76.5	90.9	84.2	59.6	76.5	69.1
GA	Atlanta	42.7	80.0	62.2	51.9	89.4	72.0	33.5	70.6	52.3
HI	Honolulu	73.0	80.8	77.5	80.4	87.8	84.7	65.7	73.8	70.2
ID	Boise	30.2	74.7	52.0	36.7	89.2	62.6	23.6	60.3	41.3
IL	Chicago	22.0	73.3	49.1	29.6	83.5	58.3	14.3	63.2	39.8
	Peoria	22.5	75.1	50.8	30.7	85.7	60.7	14.3	64.6	40.9
IA	Indianapolis	26.5	75.4	52.5	34.5	85.6	62.3	18.5	65.2	42.7
IN	Des Moines	20.4	76.1	50.0	29.1	86.0	59.8	11.7	66.1	40.2
KS	Wichita	30.2	81.0	56.4	40.1	92.9	67.4	20.3	69.1	45.2
KY	Louisville	33.0	78.4	57.0	41.0	87.0	66.0	24.9	69.8	47.9
LA	New Orleans	52.6	82.7	68.8	61.8	91.1	78.0	43.4	74.2	59.6
ME	Portland	21.7	68.7	45.8	30.9	78.8	55.2	12.5	58.6	36.3
MD	Baltimore	32.3	76.5	54.6	41.2	87.2	65.1	23.5	65.8	44.2
MA	Boston	29.3	73.9	51.6	36.5	82.2	59.3	22.1	65.5	43.9
MI	Detroit	24.5	73.5	49.8	31.1	83.4	58.4	17.8	63.6	41.0
	Sault Ste. Marie	13.2	63.9	40.1	21.5	75.7	49.6	4.9	52.0	30.5
MN	Duluth	8.4	65.5	39.1	17.9	76.3	48.7	-1.2	54.6	29.3
	Minneapolis-St. Paul	13.1	73.2	45.4	21.9	83.3	54.7	4.3	63.0	35.9
MS	Jackson	45.0	81.4	64.1	55.1	91.4	75.0	35.0	71.4	53.2
MO	Kansas City	26.9	78.5	54.2	36.0	88.8	64.3	17.8	68.2	44.2
	St. Louis	29.6	80.7	56.3	37.9	89.8	65.7	21.2	70.6	46.9
MT	Great Falls	21.7	66.2	43.8	32.1	82.0	56.4	11.3	60.4	31.1
NE	Omaha	21.7	76.7	50.7	31.7	87.4	61.5	11.6	65.9	39.8
NV	Reno	33.6	71.3	51.3	45.5	91.2	67.4	21.8	51.4	35.2
NH	Concord	20.1	70.0	45.9	30.6	82.9	57.7	9.7	57.1	34.1
NJ	Atlantic City	32.1	75.3	53.5	41.4	85.1	63.6	22.8	65.4	43.3
NM	Albuquerque	35.7	78.5	56.8	47.6	92.3	70.4	23.8	64.7	43.2
NY	Albany	22.2	71.1	47.6	31.1	82.2	57.6	13.3	60.0	37.5
	Buffalo	24.5	70.8	48.0	31.1	79.6	55.9	17.8	62.1	39.9
	New York ¹	32.1	76.5	54.6	38.0	84.2	61.7	26.2	68.8	47.5
NC	Charlotte	41.7	80.3	61.4	51.3	90.1	71.7	32.1	70.6	51.0
	Raleigh	39.7	78.8	59.6	49.8	89.1	70.6	29.6	68.5	48.6
ND	Bismarck	10.2	70.4	42.3	21.1	84.5	54.5	-0.6	56.4	30.1
OH	Cincinnati	29.7	76.3	54.2	38.0	86.4	64.0	21.3	66.1	44.3
	Cleveland	25.7	71.9	49.7	32.6	81.4	58.1	18.8	62.3	41.2
	Columbus	28.3	75.1	52.9	36.2	85.3	62.6	20.3	64.9	43.2
OK	Oklahoma City	36.7	82.0	60.1	47.1	93.1	71.1	26.2	70.8	49.2
OR	Portland	39.9	68.1	53.5	45.6	79.3	62.1	34.2	56.9	44.8
PA	Philadelphia	32.3	77.6	55.3	39.0	85.5	63.2	25.5	69.7	47.4
	Pittsburgh	27.5	72.6	51.0	35.1	82.7	60.4	19.9	62.4	41.5
RI	Providence	28.7	73.3	51.1	37.1	82.6	60.2	20.3	64.1	42.0
SC	Columbia	44.6	82.0	63.6	55.1	92.1	74.8	34.0	71.8	52.5
SD	Sioux Falls	14.0	73.0	45.1	25.2	85.6	57.2	2.9	60.3	33.0
TN	Memphis	39.9	82.5	62.4	48.6	92.1	72.1	31.3	72.9	52.5
	Nashville	36.8	79.1	58.9	45.6	88.7	69.0	27.9	69.5	48.8
TX	Dallas-Fort Worth	44.1	85.0	65.5	54.1	95.4	75.8	34.0	74.6	55.1
	El Paso	45.1	83.3	64.7	57.2	94.5	77.1	32.9	72.0	52.1
	Houston	51.8	83.6	68.8	62.3	93.6	79.4	41.2	73.5	58.2
UT	Salt Lake City	29.2	77.0	52.0	37.0	90.6	62.9	21.3	63.4	41.2
VT	Burlington	18.0	70.6	45.2	26.7	81.4	54.5	9.3	59.8	35.8
VA	Norfolk	40.1	79.1	59.6	47.8	86.8	67.8	32.3	71.4	51.4
	Richmond	36.4	77.9	57.6	45.3	87.5	67.8	27.6	68.3	47.4
WA	Seattle-Tacoma	40.9	65.3	52.3	45.8	75.3	59.8	35.9	55.3	44.8
	Spokane	27.3	68.6	47.3	32.8	82.5	57.4	21.7	54.6	37.2
WV	Charleston	33.4	73.9	54.5	42.6	84.9	65.4	24.2	62.9	43.5
WI	Milwaukee	20.7	72.0	47.5	28.0	81.1	55.9	13.4	62.9	39.2
WY	Cheyenne	25.9	67.7	45.0	37.1	81.9	57.6	14.8	53.4	32.3
PR	San Juan	76.6	82.2	79.9	82.4	87.4	85.5	70.8	76.9	74.2

¹ City office data.

Source: U.S. National Oceanic and Atmospheric Administration, *Climatology of the United States*, No. 81.

No. 378. Highest Temperature of Record—Selected Cities

[In Fahrenheit degrees. Airport data, except as noted. For period of record through 2002]

State	Station	Length of record (yr.)	Month												Annual
			Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
AL	Mobile	61	84	82	90	94	100	102	104	105	99	93	87	81	105
AK	Juneau	58	57	57	61	72	82	86	90	83	73	61	56	54	90
AZ	Phoenix	65	88	92	100	105	113	122	121	116	118	107	95	88	122
AR	Little Rock	61	83	85	91	95	98	105	112	109	106	97	86	80	112
CA	Los Angeles	67	88	92	95	102	97	104	97	98	110	106	101	94	110
	Sacramento	52	70	76	88	95	105	115	114	110	108	104	87	72	115
	San Diego	62	88	90	93	98	96	101	95	98	111	107	97	88	111
	San Francisco	75	72	78	85	92	97	106	105	100	103	99	85	75	106
CO	Denver	61	73	76	84	90	96	104	104	101	97	89	79	75	104
CT	Hartford	48	66	73	89	96	99	100	102	102	99	91	81	76	102
DE	Wilmington	55	75	78	86	94	96	100	102	101	100	91	85	75	102
DC	Washington	61	79	82	89	95	99	101	104	105	101	94	86	79	105
FL	Jacksonville	61	85	88	91	95	100	103	105	102	100	96	88	84	105
	Miami	60	88	89	92	96	96	98	98	98	97	95	91	87	98
GA	Atlanta	54	79	80	89	93	95	101	105	102	98	95	84	79	105
HI	Honolulu	33	88	88	88	91	93	92	94	93	95	94	93	89	95
ID	Boise	63	63	71	81	92	98	109	111	110	102	94	78	65	111
IL	Chicago	44	65	72	88	91	93	104	104	101	99	91	78	71	104
	Peoria	63	70	72	86	92	93	105	103	103	100	90	81	71	105
IN	Indianapolis	63	71	76	85	89	93	102	104	102	100	90	81	74	104
IA	Des Moines	63	65	73	91	93	98	103	105	108	101	95	81	69	108
KS	Wichita	50	75	87	89	96	100	110	113	110	108	95	85	83	113
KY	Louisville	55	77	77	86	91	95	102	106	101	104	92	84	76	106
LA	New Orleans	56	83	85	89	92	96	100	101	102	101	94	87	84	102
ME	Portland	62	64	64	88	85	94	98	99	103	95	88	74	71	103
MD	Baltimore	52	75	79	89	94	98	101	104	105	100	92	83	77	105
MA	Boston	51	66	70	89	94	95	100	102	102	100	90	79	76	102
MI	Detroit	44	62	70	81	89	93	104	102	100	98	91	77	69	104
	Sault Ste. Marie	62	45	49	75	85	89	93	97	98	95	80	67	62	98
MN	Duluth	61	52	55	78	88	90	94	97	97	95	86	71	55	97
	Minneapolis-St. Paul	64	58	61	83	95	96	102	105	102	98	90	77	68	105
MS	Jackson	39	83	85	89	94	99	105	106	107	104	95	88	84	107
MO	Kansas City	30	69	77	86	93	95	105	107	109	106	92	82	74	109
	St. Louis	45	76	85	89	93	94	102	107	107	104	94	85	76	107
MT	Great Falls	65	67	70	78	89	93	101	105	106	98	91	76	69	106
NE	Omaha	66	69	78	89	97	99	105	114	110	104	96	83	72	114
NV	Reno	61	70	75	83	89	96	103	108	105	101	91	77	70	108
NH	Concord	61	68	67	89	95	97	98	102	101	98	90	80	73	102
NJ	Atlantic City	59	78	75	87	94	99	106	104	103	99	90	84	77	106
NM	Albuquerque	63	69	76	85	89	98	107	105	101	100	91	77	72	107
NY	Albany	56	65	68	89	92	94	99	100	99	100	89	82	71	100
	Buffalo	59	72	71	81	94	90	96	97	99	98	87	80	74	99
	New York ¹	134	72	75	86	96	99	101	106	104	102	94	84	75	106
NC	Charlotte	63	79	81	90	93	100	103	103	103	104	98	85	78	104
	Raleigh	58	80	84	92	95	97	104	105	105	104	98	88	80	105
ND	Bismarck	63	63	69	81	93	98	111	109	109	105	95	79	65	111
OH	Cincinnati	41	69	75	84	89	93	102	103	102	98	88	81	75	103
	Cleveland	61	73	74	83	88	92	104	103	102	101	90	82	77	104
	Columbus	63	74	75	85	89	94	102	100	101	100	90	80	76	102
OK	Oklahoma City	49	80	92	93	100	104	105	110	110	108	96	87	86	110
OR	Portland	62	63	71	80	90	100	100	107	107	105	92	73	65	107
PA	Philadelphia	61	74	74	87	95	97	100	104	101	100	96	81	73	104
	Pittsburgh	50	72	76	82	89	91	98	103	100	97	87	82	74	103
RI	Providence	49	69	72	85	98	95	97	102	104	100	86	78	77	104
SC	Columbia	55	84	84	91	94	101	107	107	107	101	101	90	83	107
SD	Sioux Falls	57	66	70	87	94	100	110	108	108	104	94	81	63	110
TN	Memphis	61	79	81	85	94	99	104	108	107	103	95	86	81	108
	Nashville	63	78	84	86	91	97	106	107	104	105	94	84	79	107
TX	Dallas-Fort Worth	49	88	95	96	95	103	113	110	108	111	102	89	88	113
	El Paso	63	80	83	89	98	104	114	112	108	104	96	87	80	114
	Houston	33	84	91	91	95	99	103	104	107	109	96	89	85	109
UT	Salt Lake City	74	62	69	78	86	96	104	107	106	100	89	75	69	107
VT	Burlington	59	66	62	84	91	93	100	100	101	98	75	65	67	101
VA	Norfolk	54	80	82	88	97	100	101	103	104	99	95	86	80	104
	Richmond	73	81	83	93	96	100	104	105	102	103	99	86	81	105
WA	Seattle-Tacoma	58	64	70	75	85	93	96	100	99	98	89	74	64	100
	Spokane	55	59	63	71	90	96	101	103	108	98	86	67	56	108
WV	Charleston	55	79	79	89	94	93	98	104	101	102	92	85	80	104
WI	Milwaukee	62	62	68	82	91	93	101	103	103	98	89	77	68	103
WY	Cheyenne	67	66	71	74	83	91	100	100	96	95	83	75	69	100
PR	San Juan	48	92	96	96	97	96	97	95	97	97	98	96	94	98

¹ City office data.

Source: U.S. National Oceanic and Atmospheric Administration, *Comparative Climatic Data*, annual.

No. 379. Lowest Temperature of Record—Selected Cities

[In Fahrenheit degrees. Airport data, except as noted. For period of record through 2002]

State	Station	Length of record (years)	Month												Annual
			Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
AL	Mobile	61	3	11	21	32	43	49	60	59	42	30	22	8	3
AK	Juneau	58	-22	-22	-15	6	25	31	36	27	23	11	-5	-21	-22
AZ	Phoenix	65	17	22	25	32	40	50	61	60	47	34	25	22	17
AR	Little Rock	61	-4	-5	11	28	40	46	54	52	37	29	17	-1	-5
CA	Los Angeles	67	23	32	34	39	43	48	49	51	47	41	34	32	23
	Sacramento	52	23	23	26	31	36	41	48	49	43	36	26	18	18
	San Diego	62	29	36	39	41	48	51	55	57	51	43	38	34	29
	San Francisco	75	24	25	30	31	36	41	43	42	38	34	25	20	20
CO	Denver	61	-25	-30	-11	-2	22	30	43	41	17	3	-8	-25	-30
CT	Hartford	48	-26	-21	-6	9	28	35	44	36	30	17	1	-14	-26
DE	Wilmington	55	-14	-6	2	18	30	41	48	43	36	24	14	-7	-14
DC	Washington	61	-5	4	11	24	34	47	54	49	39	29	16	1	-5
FL	Jacksonville	61	7	19	23	34	45	47	61	59	48	36	21	11	7
	Miami	60	30	32	32	46	53	60	69	68	68	51	39	30	30
GA	Atlanta	54	-8	5	10	26	37	46	53	55	36	28	3	-	-8
HI	Honolulu	33	53	53	55	57	60	65	66	67	66	61	57	54	53
ID	Boise	63	-17	-15	6	19	22	31	35	34	23	11	-3	-25	-25
IL	Chicago	44	-27	-19	-8	7	24	36	40	41	28	17	1	-25	-27
	Peoria	63	-25	-19	-10	14	25	39	47	41	26	19	-2	-23	-25
IN	Indianapolis	63	-27	-21	-7	16	28	37	44	41	28	17	-2	-23	-27
IA	Des Moines	63	-24	-26	-22	9	30	38	47	40	26	14	-4	-22	-26
KS	Wichita	50	-12	-21	-2	15	31	43	51	48	31	18	1	-16	-21
KY	Louisville	55	-22	-19	-1	22	31	42	50	46	33	23	-1	-15	-22
LA	New Orleans	56	14	16	25	32	41	50	60	60	42	35	24	11	11
ME	Portland	62	-26	-39	-21	8	23	33	40	33	23	15	3	-21	-39
MD	Baltimore	52	-7	-3	6	20	32	40	50	45	35	25	13	-	-7
MA	Boston	51	-12	-4	6	16	34	45	50	47	38	28	15	-7	-12
MI	Detroit	44	-21	-15	-4	10	25	36	41	38	29	17	9	-10	-21
	Sault Ste. Marie	62	-36	-35	-24	-2	18	26	36	29	25	16	-10	-31	-36
MN	Duluth	61	-39	-39	-29	-5	17	27	35	32	22	8	-23	-34	-39
	Minneapolis-St. Paul	64	-34	-32	-32	2	18	34	43	39	26	13	-17	-29	-34
MS	Jackson	39	2	10	15	27	38	47	51	55	35	26	17	4	2
MO	Kansas City	30	-17	-19	-10	12	30	42	51	43	31	17	1	-23	-23
	St. Louis	45	-18	-12	-5	22	31	43	51	47	36	23	1	-16	-18
MT	Great Falls	65	-37	-35	-29	-6	15	31	36	30	16	-11	-25	-43	-43
NE	Omaha	66	-23	-21	-16	5	27	38	44	43	25	13	-9	-23	-23
NV	Reno	61	-16	-16	-2	13	18	25	33	24	20	8	1	-16	-16
NH	Concord	61	-33	-37	-16	8	21	30	35	29	21	10	-5	-22	-37
NJ	Atlantic City	59	-10	-11	5	12	25	37	42	40	32	20	10	-7	-11
NM	Albuquerque	63	-17	-5	8	19	16	40	52	50	37	21	-7	-7	-17
NY	Albany	56	-28	-21	-21	10	26	36	40	34	24	16	5	-22	-28
	Buffalo	59	-16	-20	-7	12	26	35	43	38	32	20	9	-10	-20
	New York ²	134	-6	-15	3	12	32	44	52	50	39	28	5	-13	-15
NC	Charlotte	63	-5	5	4	24	32	45	53	53	39	24	11	2	-5
	Raleigh	58	-9	-	11	23	31	38	48	46	37	19	11	4	-9
ND	Bismarck	63	-44	-43	-31	-12	15	30	35	33	11	-10	-30	-43	-44
OH	Cincinnati	41	-25	-11	-11	15	27	39	47	43	31	16	1	-20	-25
	Cleveland	61	-20	-15	-5	10	25	31	41	38	32	19	3	-15	-20
	Columbus	63	-22	-13	-6	14	25	35	43	39	31	20	5	-17	-22
OK	Oklahoma City	49	-4	-3	3	20	37	47	53	51	36	16	11	-8	-8
OR	Portland	62	-2	-3	19	29	29	39	43	44	34	26	13	6	-3
PA	Philadelphia	61	-7	-4	7	19	28	44	51	44	35	25	15	1	-7
	Pittsburgh	50	-22	-12	-1	14	26	34	42	39	31	16	-1	-12	-22
RI	Providence	49	-13	-7	1	14	29	41	48	40	33	20	6	-10	-13
SC	Columbia	55	-1	5	4	26	34	44	54	53	40	23	12	4	-1
SD	Sioux Falls	57	-36	-31	-23	5	17	33	38	34	22	9	-17	-28	-36
TN	Memphis	61	-4	-11	12	29	38	48	52	48	36	25	9	-13	-13
	Nashville	63	-17	-13	2	23	34	42	51	47	36	26	-1	-10	-17
TX	Dallas-Fort Worth	49	4	7	15	29	41	51	59	56	43	29	20	-1	-1
	El Paso	63	-8	8	14	23	31	46	57	56	41	25	1	5	-8
	Houston	33	12	20	22	31	44	52	62	60	48	29	19	7	7
UT	Salt Lake City	74	-22	-30	2	14	25	35	40	37	27	16	-14	-21	-30
VT	Burlington	59	-30	-30	-20	2	24	33	39	35	25	15	-2	-26	-30
VA	Norfolk	54	-3	8	18	28	36	45	54	49	45	27	20	7	-3
	Richmond	73	-12	-10	11	23	31	40	51	46	35	21	10	-1	-12
WA	Seattle-Tacoma	58	-	1	11	29	28	38	43	44	35	28	6	6	-
	Spokane	55	-22	-24	-7	17	24	33	37	35	22	7	-21	-25	-25
WV	Charleston	55	-16	-12	-	19	26	33	46	41	34	17	6	-12	-16
WI	Milwaukee	62	-26	-26	-10	12	21	33	40	44	28	18	-5	-20	-26
WY	Cheyenne	67	-29	-34	-21	-8	16	25	38	36	8	-1	-16	-28	-34
PR	San Juan	48	61	62	60	64	66	69	69	70	69	46	66	59	46

- Represents zero. ¹ Period of record through 2000. ² City office data.

Source: U.S. National Oceanic and Atmospheric Administration, *Comparative Climatic Data*, annual.

No. 380. Normal Monthly and Annual Precipitation—Selected Cities

[In inches. Airport data, except as noted. Based on standard 30-year period, 1971 through 2000]

State	Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
AL	Mobile	5.75	5.10	7.20	5.06	6.10	5.01	6.54	6.20	6.01	3.25	5.41	4.66	66.29
AK	Juneau	4.81	4.02	3.51	2.96	3.48	3.36	4.14	5.37	7.54	8.30	5.43	5.41	58.33
AZ	Phoenix	0.83	0.77	1.07	0.25	0.16	0.09	0.99	0.94	0.75	0.79	0.73	0.92	8.29
AR	Little Rock	3.61	3.33	4.88	5.47	5.05	3.95	3.31	2.93	3.71	4.25	5.73	4.71	50.93
CA	Los Angeles	2.98	3.11	2.40	0.63	0.24	0.08	0.03	0.14	0.26	0.36	1.13	1.79	13.15
	Sacramento	3.84	3.54	2.80	1.02	0.53	0.20	0.05	0.06	0.36	0.89	2.19	2.45	17.93
	San Diego	2.28	2.04	2.26	0.75	0.20	0.09	0.03	0.09	0.21	0.44	1.07	1.31	10.77
	San Francisco	4.45	4.01	3.26	1.17	0.38	0.11	0.03	0.07	0.20	1.04	2.49	2.89	20.11
CO	Denver	0.51	0.49	1.28	1.93	2.32	1.56	2.16	1.82	1.14	0.99	0.98	0.63	15.81
CT	Hartford	3.84	2.96	3.88	3.86	4.39	3.85	3.67	3.98	4.13	3.94	4.06	3.60	46.16
DE	Wilmington	3.43	2.81	3.97	3.39	4.15	3.59	4.28	3.51	4.01	3.08	3.19	3.40	42.81
DC	Washington	3.21	2.63	3.60	2.77	3.82	3.13	3.66	3.44	3.79	3.22	3.03	3.05	39.35
FL	Jacksonville	3.69	3.15	3.93	3.14	3.48	5.37	5.97	6.87	7.90	3.86	2.34	2.64	52.34
	Miami	1.88	2.07	2.56	3.36	5.52	8.54	5.79	8.63	8.38	6.19	3.43	2.18	58.53
GA	Atlanta	5.02	4.68	5.38	3.62	3.95	3.63	5.12	3.67	4.09	3.11	4.10	3.82	50.20
HI	Honolulu	2.73	2.35	1.89	1.11	0.78	0.43	0.50	0.46	0.74	2.18	2.26	2.85	18.29
ID	Boise	1.39	1.14	1.41	1.27	1.27	0.74	0.39	0.30	0.76	0.76	1.38	1.38	12.19
IL	Chicago	1.75	1.63	2.65	3.68	3.38	3.63	3.51	4.62	3.27	2.71	3.01	2.43	36.27
	Peoria	1.50	1.67	2.83	3.56	4.17	3.84	4.02	3.16	3.12	2.76	2.99	2.40	36.03
IN	Indianapolis	2.48	2.41	3.44	3.61	4.35	4.13	4.42	3.82	2.88	2.76	3.61	3.03	40.95
IA	Des Moines	1.03	1.19	2.21	3.58	4.25	4.57	4.18	4.51	3.15	2.62	2.10	1.33	34.72
KS	Wichita	0.84	1.02	2.71	2.57	4.16	4.25	3.31	2.94	2.96	2.45	1.82	1.35	30.78
KY	Louisville	3.28	3.25	4.41	3.91	4.88	3.76	4.30	3.41	3.05	2.79	3.80	3.69	44.54
LA	New Orleans	5.87	5.47	5.24	5.02	4.62	6.83	6.20	6.15	5.55	3.05	5.09	5.07	64.16
ME	Portland	4.09	3.14	4.14	4.26	3.82	3.28	3.32	3.05	3.37	4.40	4.72	4.24	45.83
MD	Baltimore	3.47	3.02	3.93	3.00	3.89	3.43	3.85	3.74	3.98	3.16	3.12	3.35	41.94
MA	Boston	3.92	3.30	3.85	3.60	3.24	3.22	3.06	3.37	3.47	3.79	3.98	3.73	42.53
MI	Detroit	1.91	1.88	2.52	3.05	3.05	3.55	3.16	3.10	3.27	2.23	2.66	2.51	32.89
	Sault Ste. Marie	2.64	1.60	2.41	2.57	2.50	3.00	3.14	3.47	3.71	3.32	3.40	2.91	34.67
MN	Duluth	1.12	0.83	1.69	2.09	2.95	4.25	4.20	4.22	4.13	2.46	2.12	0.94	31.00
	Minneapolis-St. Paul	1.04	0.79	1.86	2.31	3.24	4.34	4.04	4.05	2.69	2.11	1.94	1.00	29.41
MS	Jackson	5.67	4.50	5.74	5.98	4.86	3.82	4.69	3.66	3.23	3.42	5.04	5.34	55.95
MO	Kansas City	1.15	1.31	2.44	3.38	5.39	4.44	4.42	3.54	4.64	3.33	2.30	1.64	37.98
	St. Louis	2.14	2.28	3.60	3.69	4.11	3.76	3.90	2.98	2.96	2.76	3.71	2.86	38.75
MT	Great Falls	0.68	0.51	1.01	1.40	2.53	2.24	1.45	1.65	1.23	0.93	0.59	0.67	14.89
NE	Omaha	0.77	0.80	2.13	2.94	4.44	3.95	3.86	3.21	3.17	2.21	1.82	0.92	30.22
NV	Reno	1.06	1.06	0.86	0.35	0.62	0.47	0.24	0.27	0.45	0.42	0.80	0.88	7.48
NH	Concord	2.97	2.36	3.04	3.07	3.33	3.10	3.37	3.21	3.16	3.46	3.57	2.96	37.60
NJ	Atlantic City	3.60	2.85	4.06	3.45	3.38	2.66	3.86	4.32	3.14	2.86	3.26	3.15	40.59
NM	Albuquerque	0.49	0.44	0.61	0.50	0.60	0.65	1.27	1.73	1.07	1.00	0.62	0.49	9.47
NY	Albany	2.71	2.27	3.17	3.25	3.67	3.74	3.50	3.68	3.31	3.23	3.31	2.76	38.60
	Buffalo	3.16	2.42	2.99	3.04	3.35	3.82	3.14	3.87	3.84	3.19	3.92	3.80	40.54
	New York ¹	4.13	3.15	4.37	4.28	4.69	3.84	4.62	4.22	4.23	3.85	4.36	3.95	49.69
NC	Charlotte	4.00	3.55	4.39	2.95	3.66	3.42	3.79	3.72	3.83	3.66	3.36	3.18	43.51
	Raleigh	4.02	3.47	4.03	2.80	3.79	3.42	4.29	3.78	4.26	3.18	2.97	3.04	43.05
ND	Bismarck	0.45	0.51	0.85	1.46	2.22	2.59	2.58	2.15	1.61	1.28	0.70	0.44	16.84
OH	Cincinnati	2.92	2.75	3.90	3.96	4.59	4.42	3.75	3.79	2.82	2.96	3.46	3.28	42.60
	Cleveland	2.48	2.29	2.94	3.37	3.50	3.89	3.52	3.69	3.77	2.73	3.38	3.14	38.71
	Columbus	2.53	2.20	2.89	3.25	3.88	4.07	4.61	3.72	2.92	2.31	3.19	2.93	38.52
OK	Oklahoma City	1.28	1.56	2.90	3.00	5.44	4.63	2.94	2.48	3.98	3.64	2.11	1.89	35.85
OR	Portland	5.07	4.18	3.71	2.64	2.38	1.59	0.72	0.93	1.65	2.88	5.61	5.71	37.07
PA	Philadelphia	3.52	2.74	3.81	3.49	3.88	3.29	4.39	3.82	3.88	2.75	3.16	3.31	42.05
	Pittsburgh	2.70	2.37	3.17	3.01	3.80	4.12	3.96	3.38	3.21	2.25	3.02	2.86	37.85
RI	Providence	4.37	3.45	4.43	4.16	3.66	3.38	3.17	3.90	3.70	3.69	4.40	4.14	46.45
SC	Columbia	4.66	3.84	4.59	2.98	3.17	4.99	5.54	5.41	3.94	2.89	2.88	3.38	48.27
SD	Sioux Falls	0.51	0.51	1.81	2.65	3.39	3.49	2.93	3.01	2.58	1.93	1.36	0.52	24.69
TN	Memphis	4.24	4.31	5.58	5.79	5.15	4.30	4.22	3.00	3.31	3.31	5.76	5.68	54.65
	Nashville	3.97	3.69	4.87	3.93	5.07	4.08	3.77	3.28	3.59	2.87	4.45	4.54	48.11
TX	Dallas-Fort Worth	1.90	2.37	3.06	3.20	5.15	3.23	2.12	2.03	2.42	4.11	2.57	2.57	34.73
	El Paso	0.45	0.39	0.26	0.23	0.38	0.87	1.49	1.75	1.61	0.81	0.42	0.77	9.43
	Houston	3.68	2.98	3.36	3.60	5.15	5.35	3.18	3.83	4.33	4.50	4.19	3.69	47.84
UT	Salt Lake City	1.37	1.33	1.91	2.02	2.09	0.77	0.72	0.76	1.33	1.57	1.40	1.23	16.50
VA	Burlington	2.22	1.67	2.32	2.88	3.32	3.43	3.97	4.01	3.83	3.12	3.06	2.22	36.05
	Norfolk	3.93	3.34	4.08	3.38	3.74	3.77	5.17	4.79	4.06	3.47	2.98	3.03	45.74
	Richmond	3.55	2.98	4.09	3.18	3.95	3.54	4.67	4.18	3.98	3.60	3.06	3.12	43.91
WA	Seattle-Tacoma	5.13	4.18	3.75	2.59	1.77	1.49	0.79	1.02	1.63	3.19	5.90	5.62	37.07
	Spokane	1.82	1.51	1.53	1.28	1.60	1.18	0.76	0.68	0.76	1.06	2.24	2.25	16.67
WV	Charleston	3.25	3.19	3.90	3.25	4.30	4.09	4.86	4.11	3.45	2.67	3.66	3.32	44.05
WI	Milwaukee	1.85	1.65	2.59	3.78	3.06	3.56	3.58	4.03	3.30	2.49	2.70	2.22	34.81
WY	Cheyenne	0.45	0.44	1.05	1.55	2.48	2.12	2.26	1.82	1.43	0.75	0.64	0.46	15.45
PR	San Juan	3.02	2.30	2.14	3.71	5.29	3.52	4.16	5.22	5.60	5.06	6.17	4.57	50.76

¹ City office data.

Source: U.S. National Oceanic and Atmospheric Administration, *Climatology of the United States*, No. 81.

No. 381. Average Number of Days With Precipitation of 0.01 Inch or More— Selected Cities

[Airport data, except as noted. For period of record through 2002]

State	Station	Length of record (yr.)	Month												Annual
			Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
AL	Mobile	61	11	9	10	7	8	11	16	14	10	6	8	10	121
AK	Juneau	58	19	17	18	17	17	16	17	18	21	24	20	21	223
AZ	Phoenix	63	4	4	4	2	1	1	4	5	3	3	2	4	36
AR	Little Rock	60	10	9	10	10	10	8	8	7	7	7	8	9	104
CA	Los Angeles	67	6	6	6	3	1	1	1	(Z)	1	2	3	5	35
	Sacramento	63	10	9	9	5	3	1	(Z)	(Z)	1	3	7	9	58
	San Diego	62	7	6	7	5	2	1	(Z)	-	1	2	4	6	42
	San Francisco	75	11	10	10	6	3	1	(Z)	(Z)	1	4	7	10	63
CO	Denver	61	6	6	9	9	11	9	9	9	6	5	6	5	89
CT	Hartford	48	11	10	12	11	12	11	10	10	10	9	11	12	127
DE	Wilmington	55	11	9	11	11	11	10	9	9	8	8	9	10	117
DC	Washington	61	10	9	11	10	11	10	10	9	8	7	8	9	112
FL	Jacksonville	61	8	8	8	6	8	13	14	15	13	9	6	8	116
	Miami	60	7	6	6	6	10	15	16	18	17	14	8	7	131
GA	Atlanta	68	12	10	11	9	9	10	12	9	8	7	9	10	115
HI	Honolulu	53	9	9	9	9	7	6	7	6	7	8	9	10	96
ID	Boise	63	12	10	10	8	8	6	2	2	4	6	10	11	89
IL	Chicago	44	11	9	12	13	11	10	10	9	9	9	11	11	125
	Peoria	63	9	8	11	12	12	10	9	8	8	8	9	10	114
IN	Indianapolis	63	12	10	13	12	12	10	10	9	8	8	10	12	126
IA	Des Moines	63	7	7	10	11	12	11	9	9	9	8	7	8	108
KS	Wichita	49	5	5	8	8	11	9	8	7	8	6	5	6	86
KY	Louisville	55	11	10	13	12	12	10	10	8	8	7	10	12	124
LA	New Orleans	54	10	9	9	7	8	11	14	13	10	6	8	10	114
ME	Portland	62	11	10	11	12	12	11	10	9	9	9	12	11	129
MD	Baltimore	52	10	9	11	11	11	10	9	9	8	7	9	9	114
MA	Boston	51	12	10	12	11	12	11	9	10	9	9	11	12	126
MI	Detroit	44	13	11	13	13	11	10	10	10	10	10	12	13	135
	Sault Ste. Marie	61	19	14	13	11	11	11	10	11	13	14	17	19	165
MN	Duluth	61	12	9	11	11	12	13	12	11	12	10	11	11	134
	Minneapolis-St. Paul	64	9	7	10	10	11	12	10	10	10	8	8	9	116
MS	Jackson	39	11	9	10	8	9	9	11	10	8	7	9	10	110
MO	Kansas City	30	7	7	10	11	12	10	9	9	8	8	7	7	105
	St. Louis	45	9	8	11	11	11	9	9	8	8	8	9	9	111
MT	Great Falls	65	9	8	9	9	11	12	8	8	7	6	7	7	100
NE	Omaha	66	6	7	8	10	12	10	9	9	8	6	6	6	99
NV	Reno	60	6	6	6	4	4	3	2	2	3	3	5	6	51
NH	Concord	61	11	9	11	11	12	11	10	10	9	9	11	11	127
NJ	Atlantic City	59	11	10	11	11	10	9	9	9	8	7	9	10	113
NM	Albuquerque	63	4	4	5	3	4	4	9	10	6	5	4	4	61
NY	Albany	56	13	11	12	12	13	11	10	10	10	9	12	12	135
	Buffalo	59	20	17	16	14	13	11	10	10	11	12	16	19	168
	New York ²	133	11	10	11	11	11	10	10	10	8	8	9	10	121
NC	Charlotte	63	10	9	11	9	9	10	11	10	7	7	8	10	111
	Raleigh	58	10	10	10	9	10	10	11	10	8	7	8	9	113
ND	Bismarck	63	8	7	8	8	10	12	9	8	7	6	6	7	96
OH	Cincinnati	55	12	11	13	13	12	11	10	9	8	8	11	12	130
	Cleveland	61	16	14	15	15	13	11	10	10	10	11	14	16	155
	Columbus	63	13	11	13	13	13	11	11	9	8	9	11	13	137
OK	Oklahoma City	63	5	6	7	8	10	9	6	6	7	7	5	6	83
OR	Portland	62	18	16	17	15	12	9	4	5	7	12	18	19	152
PA	Philadelphia	62	11	9	11	11	11	10	9	9	8	8	9	10	117
	Pittsburgh	50	16	14	15	14	13	12	11	10	10	10	13	16	152
RI	Providence	49	11	10	12	11	11	11	9	9	9	9	10	12	124
SC	Columbia	55	10	9	10	8	8	10	12	11	8	6	7	9	109
SD	Sioux Falls	57	6	7	9	10	11	11	10	9	8	6	7	6	98
TN	Memphis	52	10	9	11	10	9	9	9	7	7	6	9	10	107
	Nashville	61	11	10	12	11	11	10	10	9	8	7	9	11	119
TX	Dallas-Fort Worth	49	7	7	8	8	9	7	5	5	6	6	6	7	79
	El Paso	63	4	3	2	2	2	3	8	8	5	4	3	4	49
	Houston	33	10	8	9	7	8	10	9	9	9	8	8	9	105
UT	Salt Lake City	74	10	9	10	10	8	5	4	6	5	6	8	9	91
VT	Burlington	59	15	11	13	12	14	13	12	12	12	12	14	15	154
VA	Norfolk	54	11	10	11	10	10	9	11	10	8	7	8	9	116
	Richmond	65	10	9	11	9	11	9	11	9	8	7	8	9	113
WA	Seattle-Tacoma	58	19	16	17	14	11	9	5	6	9	13	18	19	155
	Spokane	55	14	11	11	9	9	8	5	5	6	8	13	14	112
WV	Charleston	55	15	14	15	14	13	12	13	11	9	9	12	14	151
WI	Milwaukee	62	11	10	12	12	12	11	10	9	9	9	10	11	125
WY	Cheyenne	67	6	6	9	10	12	11	11	10	8	6	6	6	100
PR	San Juan	47	17	13	12	13	16	15	19	19	18	17	19	19	197

- Represents zero. Z Less than 1/2 day. ¹ Period of record through 2000. ² City office data.

Source: U.S. National Oceanic and Atmospheric Administration, *Comparative Climatic Data*, annual.

No. 382. Snow and Ice Pellets—Selected Cities

[In inches. Airport data, except as noted. For period of record through 2001. T denotes trace]

State	Station	Length of record (yr)	Length of record (yr)												Annual
			Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
AL	Mobile	60	0.1	0.1	0.1	T	T	-	T	-	-	-	T	0.1	0.4
AK	Juneau	58	25.6	19.1	14.6	3.3	T	T	T	-	-	-	1	11.8	21.9
AZ	Phoenix ²	62	T	-	T	T	T	-	-	-	-	T	-	T	T
AR	Little Rock ²	56	2.4	1.5	0.5	T	T	T	-	-	-	-	-	-	T
CA	Los Angeles ²	62	T	T	T	-	-	-	-	-	-	-	-	0.2	0.6
	Sacramento ²	50	T	T	T	-	-	T	-	-	-	-	-	-	T
	San Diego ²	60	T	-	T	T	-	-	-	-	-	-	-	-	T
	San Francisco ²	69	-	T	T	-	-	-	-	-	-	-	-	-	T
CO	Denver ²	61	8.1	7.5	12.5	8.9	1.6	-	T	T	1.6	3.7	9.1	7.3	60.3
CT	Hartford	45	12.9	12.2	10.1	1.5	-	-	T	-	-	-	0.1	2.1	10.1
DE	Wilmington	52	6.7	6.1	3.2	0.2	T	T	T	T	-	0.1	0.9	3.3	20.5
DC	Washington	59	5.5	5.1	2.3	T	T	T	T	T	-	-	0.8	2.9	16.6
FL	Jacksonville ²	60	T	-	-	T	-	T	T	-	-	-	-	-	T
	Miami ²	59	-	-	-	-	-	T	-	-	-	-	-	-	T
GA	Atlanta	65	1	0.5	0.4	T	-	-	-	-	-	-	T	0.2	2.1
HI	Honolulu ²	52	-	-	-	-	-	-	-	-	-	-	-	-	0.0
ID	Boise	63	6.5	3.7	1.7	0.6	0.1	T	T	T	T	0.1	2.3	5.7	20.7
IL	Chicago	43	11.2	7.9	6.9	1.6	0.1	T	T	T	T	0.4	2	8.4	38.5
	Peoria	59	6.7	5	4.2	0.8	T	T	T	T	-	0.1	2	6.1	24.9
IN	Indianapolis	71	6.8	5.4	3.5	0.5	T	-	-	T	-	0.2	1.9	5.3	23.6
IA	Des Moines	59	8.3	7.1	6	1.8	-	T	-	T	-	0.3	3.1	6.5	33.1
KS	Wichita	49	4.2	3.9	2.8	0.2	T	T	T	T	T	-	1.3	3.3	15.7
KY	Louisville	55	5.4	4.3	3.1	0.1	T	T	T	T	-	0.1	1	2.4	16.4
LA	New Orleans ²	51	T	0.1	T	T	T	-	-	-	-	-	T	0.1	0.2
ME	Portland	62	19.3	16.5	13.5	2.9	0.2	-	T	-	T	0.2	3.3	14.5	70.4
MD	Baltimore	52	6.3	6.5	3.8	0.1	T	T	T	-	-	-	-	1	3.1
MA	Boston	65	12.8	11.5	8.1	0.9	-	T	-	T	-	T	1.3	7.6	42.2
MI	Detroit	44	10.6	9	6.9	1.7	T	-	-	-	-	0.2	2.7	10	41.1
	Sault Ste. Marie ²	57	29.2	18.2	14.6	5.8	0.5	T	T	T	0.1	2.4	15.6	31	117.4
MN	Duluth	59	17.7	11.9	13.8	6.8	0.7	T	T	T	0.1	1.6	12.9	15.2	80.7
	Minneapolis-St. Paul ²	62	10.7	8.1	10.5	2.8	0.1	T	T	T	T	0.5	7.8	9.4	49.9
MS	Jackson ²	38	0.5	0.2	0.2	T	-	-	-	T	-	-	-	T	0.1
MO	Kansas City	68	5.6	4.4	3.4	0.8	T	T	T	T	T	0.1	1.2	4.4	19.9
	St. Louis	66	5.4	4.4	3.9	0.5	-	T	T	-	-	T	1.4	4	19.6
MT	Great Falls	65	9.5	8.5	10.6	7.1	1.9	0.3	T	0.1	1.5	3.4	7.3	8.1	58.3
NE	Omaha	67	7.2	6.7	6.3	1	0.1	T	T	T	T	0.3	2.6	5.7	29.9
NV	Reno ²	54	5.8	5.2	4.3	1.2	0.8	-	-	-	-	0.3	2.4	4.3	24.3
NH	Concord	61	17.8	14.1	11.6	2.5	0.1	T	-	-	T	0.1	3.9	13.7	63.8
NJ	Atlantic City	53	4.9	5.3	2.5	0.3	T	T	T	-	-	T	0.4	2.3	15.7
NM	Albuquerque	63	2.5	2.1	1.8	0.6	T	T	T	T	T	0.1	1.2	2.7	11.0
NY	Albany	56	16.7	13.7	11.6	2.7	0.1	T	T	-	T	0.2	4.3	14.6	63.9
	Buffalo	59	24	17.7	12.5	3.2	0.2	T	T	T	T	0.3	11.4	24.3	93.6
	New York ¹	134	7.5	8.5	5.1	0.9	T	-	-	-	-	T	0.9	5.5	28.4
NC	Charlotte	63	2.1	1.6	1.2	T	T	T	-	-	-	T	0.1	0.5	5.5
	Raleigh	58	2.8	2.5	1.3	T	T	T	-	-	-	-	0.1	0.8	7.5
ND	Bismarck	63	7.8	7	8.5	4.1	0.9	T	T	T	0.2	1.9	7	6.9	44.3
OH	Cincinnati	55	7.2	5.4	4.3	0.5	-	T	T	T	-	0.3	2	3.7	23.4
	Cleveland	61	13.5	12	10.9	2.4	0.1	T	T	-	T	0.6	5.3	12.1	56.9
	Columbus	55	8.8	5.9	4.4	0.9	T	T	T	-	T	0.1	2.2	5.4	27.7
OK	Oklahoma City	63	3.2	2.4	1.5	T	T	T	T	T	-	T	0.5	1.9	9.5
OR	Portland ²	55	3.2	1.1	0.4	T	-	T	-	T	T	-	0.4	1.4	6.5
PA	Philadelphia	60	6.1	6.6	3.5	0.3	T	-	-	-	-	T	0.7	3.3	20.5
	Pittsburgh	50	11.8	8.9	8.5	1.7	0.1	T	T	T	T	0.4	3.5	8.1	43.0
RI	Providence	49	9.6	9.6	7.3	0.7	0.2	-	-	-	-	0.1	1.2	6.8	35.5
SC	Columbia ²	54	0.5	0.8	0.2	T	T	-	-	-	-	-	-	T	0.3
SD	Sioux Falls	57	6.9	8	9.3	2.9	T	T	T	T	T	0.9	6.1	7	41.1
TN	Memphis ²	49	2.2	1.4	0.8	T	T	T	-	-	-	T	0.1	0.6	5.1
	Nashville ²	57	3.7	3	1.5	-	-	T	-	T	-	-	0.4	1.4	10.0
TX	Dallas-Fort Worth	44	1.1	1	0.2	T	T	-	-	-	-	T	0.1	0.2	2.6
	El Paso ²	57	1.3	0.8	0.4	0.3	T	T	-	-	T	-	0.9	1.6	5.3
	Houston	68	0.2	0.2	T	T	T	-	-	-	-	-	-	T	0.4
UT	Salt Lake City	74	13.6	9.8	9.3	5	0.6	T	T	T	0.1	1.3	7	11.8	58.5
VT	Burlington	59	19.3	16.5	13.9	4.2	0.2	-	T	T	-	0.2	6.8	17.7	78.8
VA	Norfolk	52	3	2.9	1	-	T	-	T	-	-	-	-	0.9	7.8
	Richmond	63	5	3.9	2.4	0.1	T	-	-	-	-	-	0.4	2	13.8
WA	Seattle-Tacoma ²	52	4.9	1.6	1.3	0.1	T	-	-	-	T	-	1.1	2.4	11.4
	Spokane	55	15.4	7.6	3.9	0.6	0.1	T	-	-	-	0.4	6.3	14.5	48.8
WV	Charleston ²	49	11.1	8.7	5.4	0.9	-	T	T	T	T	0.2	2.4	5.3	34.0
WI	Milwaukee	62	13.9	9.3	8.3	1.9	0.1	T	T	T	T	0.2	3	10.6	47.3
WY	Cheyenne	67	6.4	6.4	11.8	9.3	3.4	0.2	T	T	1.1	3.8	7.1	6.1	55.6
PR	San Juan	47	-	-	-	-	-	-	-	-	-	-	-	-	-

- Represents zero or rounds to zero. ¹ City office data. ² Period of record through 2000.

Source: U.S. National Oceanic and Atmospheric Administration, *Comparative Climatic Data*, annual.

No. 383. Sunshine, Average Wind Speed, Heating and Cooling Degree Days, and Average Relative Humidity—Selected Cities

[Airport data, except as noted. For period of record through 2002, except heating and cooling normals for period 1971-2000. M=morning, A=afternoon]

State	Station	Average percentage of possible sunshine ¹		Average wind speed (m.p.h.)					Average relative humidity(percent)							
		Length of record (yr.)	Annual	Length of record (yr.)	Annual	Jan.	July	Heating degree days	Cooling degree days	Length of record (yr.)	Annual		Jan.		July	
											M	A	M	A	M	A
AL	Mobile	47	60	53	8.8	10.1	6.9	1,667	2,548	40	87	62	83	65	90	66
AK	Juneau	47	23	56	8.2	8.1	7.5	8,574	-	36	80	70	78	74	79	67
AZ	Phoenix	57	81	56	6.2	5.3	7.1	1,040	4,355	42	50	23	64	32	43	20
AR	Little Rock	35	60	59	7.8	8.4	6.7	3,084	2,086	38	83	60	80	65	86	58
CA	Los Angeles	60	72	53	7.5	6.7	7.9	1,286	682	43	79	65	71	61	86	69
	Sacramento	49	73	51	7.8	7.1	8.9	2,666	1,248	16	83	46	91	70	77	30
	San Diego	55	72	61	7.0	6.0	7.5	1,063	866	42	77	63	72	58	82	67
	San Francisco	68	71	74	10.6	7.2	13.6	2,862	142	43	84	62	86	68	66	30
CO	Denver	61	67	47	8.6	8.6	8.3	6,128	695	35	67	40	63	49	68	34
CT	Hartford	41	52	47	8.4	8.9	7.3	6,104	759	43	77	52	72	57	79	51
DE	Wilmington	47	55	53	9.0	9.8	7.8	4,887	1,125	55	78	55	76	60	79	54
DC	Washington	48	55	53	9.4	10.0	8.3	3,999	1,560	42	75	54	71	56	76	59
FL	Jacksonville	47	61	52	7.8	8.1	7.0	1,353	2,636	66	89	56	88	58	89	53
	Miami	46	68	52	9.2	9.5	7.9	155	4,383	38	83	61	84	60	83	63
GA	Atlanta	61	59	63	9.1	10.4	7.7	2,827	1,810	42	82	56	79	59	88	59
HI	Honolulu	47	74	52	11.3	9.4	13.1	-	4,561	33	72	56	81	61	68	52
ID	Boise	56	58	62	8.7	7.9	8.4	5,809	769	63	69	43	80	70	84	21
IL	Chicago	37	52	43	10.3	11.6	8.4	6,493	835	44	80	63	78	70	82	60
	Peoria	52	53	58	9.8	10.9	7.8	6,095	998	43	83	65	80	71	87	63
IN	Indianapolis	64	51	53	9.6	10.9	7.5	5,521	1,042	43	84	62	81	71	87	60
IA	Des Moines	46	55	52	10.7	11.4	8.9	6,432	1,052	41	80	63	77	70	83	61
KS	Wichita	46	58	48	12.2	12.0	11.3	4,765	1,658	49	80	58	79	65	79	53
KY	Louisville	47	53	54	8.3	9.5	6.8	4,352	1,443	42	81	59	78	65	85	58
LA	New Orleans	47	60	53	8.2	9.3	6.1	1,417	2,776	54	87	65	85	68	91	68
ME	Portland	54	55	61	8.7	9.0	7.6	7,325	347	62	79	59	76	61	80	59
MD	Baltimore	45	58	51	8.8	9.4	7.6	4,634	1,220	49	78	54	73	57	80	53
MA	Boston	60	55	44	12.4	13.7	11.0	5,630	777	38	73	58	69	58	74	57
MI	Detroit	37	49	43	10.3	11.9	8.5	6,449	727	44	81	60	80	70	82	54
	Sault Ste. Marie	54	43	60	9.2	9.6	7.8	9,230	145	61	85	66	81	74	88	62
MN	Duluth	47	49	52	11.0	11.6	9.4	9,742	189	41	81	66	78	72	85	63
	Minneapolis-St. Paul	57	54	63	10.5	10.5	9.4	7,882	699	43	78	63	76	69	81	59
MS	Jackson	30	59	38	7.0	8.2	5.2	2,368	2,290	39	90	62	86	68	93	64
MO	Kansas City	23	59	29	10.6	11.1	9.2	5,249	1,325	30	81	64	77	67	85	64
	St. Louis	47	55	52	9.6	10.6	8.0	4,757	1,561	42	82	62	81	68	83	60
MT	Great Falls	57	51	60	12.5	14.9	10.0	7,675	326	41	68	46	67	61	68	31
NE	Omaha	49	59	65	10.5	10.9	8.8	6,312	1,095	38	81	63	79	68	85	63
NV	Reno	53	69	59	6.6	5.6	7.2	5,601	493	39	68	31	79	50	60	18
NH	Concord	54	55	59	6.7	7.2	5.7	7,485	442	37	81	53	76	59	84	51
NJ	Atlantic City	37	56	43	9.8	10.7	8.3	5,113	935	38	82	56	79	59	83	57
NM	Albuquerque	56	76	62	8.9	8.0	8.9	4,281	1,290	42	59	29	68	39	59	27
NY	Albany	57	49	63	8.9	9.8	7.5	6,861	544	37	80	58	78	64	81	55
	Buffalo	52	43	62	11.8	14.0	10.2	6,693	548	42	80	63	79	73	79	55
	New York ²	42	64	64	9.3	10.6	7.6	4,744	1,160	68	72	56	68	60	75	55
NC	Charlotte	49	59	52	7.4	7.8	6.6	3,208	1,644	42	82	53	78	55	86	56
	Raleigh	47	59	52	7.6	8.2	6.7	3,465	1,521	38	85	54	80	55	89	58
ND	Bismarck	56	55	62	10.2	10.0	9.2	8,809	471	43	81	61	76	71	84	53
OH	Cincinnati	44	49	54	9.0	10.4	7.2	5,200	1,053	40	82	60	80	69	86	58
	Cleveland	54	45	60	10.5	12.2	8.6	6,097	712	42	80	62	79	70	82	57
	Columbus	46	48	52	8.3	9.8	6.5	5,546	925	43	81	59	78	68	84	56
OK	Oklahoma City	44	64	53	12.2	12.5	10.9	3,663	1,907	37	80	59	78	62	80	55
OR	Portland	47	39	53	7.9	9.9	7.6	4,366	398	62	85	59	85	76	82	45
PA	Philadelphia	55	56	61	9.5	10.3	8.2	4,759	1,235	43	76	55	74	60	78	54
	Pittsburgh	43	44	49	9.0	10.4	7.3	5,829	726	42	79	58	77	66	83	54
RI	Providence	42	55	48	10.4	10.9	9.4	5,754	714	39	75	55	72	57	77	56
SC	Columbia	48	60	53	6.8	7.2	6.3	2,595	2,063	36	86	51	83	54	88	53
SD	Sioux Falls	50	57	53	11.0	10.9	9.8	7,746	757	39	82	64	78	71	84	60
TN	Memphis	43	59	53	8.8	10.0	7.5	3,033	2,190	63	80	59	78	65	84	60
	Nashville	54	57	60	8.0	9.1	6.5	3,658	1,656	37	83	61	79	66	88	61
TX	Dallas-Fort Worth	42	64	48	10.7	11.0	9.8	2,370	2,571	39	81	59	79	63	79	53
	El Paso	53	80	59	8.8	8.3	8.3	2,604	2,165	42	56	27	65	34	61	29
	Houston	26	56	32	7.6	8.1	6.7	1,525	2,893	33	89	65	85	68	92	63
UT	Salt Lake City	69	62	72	8.8	7.5	9.5	5,607	1,089	43	67	43	79	69	52	22
VT	Burlington	52	44	58	9.0	9.7	8.0	7,665	489	37	77	59	73	64	78	53
VA	Norfolk	47	58	53	10.5	11.4	8.9	3,342	1,630	54	78	57	75	59	81	59
	Richmond	50	56	53	7.7	8.1	6.9	3,878	1,466	68	83	53	80	57	85	56
WA	Seattle-Tacoma ³	51	38	53	8.8	9.5	8.1	4,797	1,733	43	84	62	82	75	82	49
	Spokane	48	48	54	8.9	8.7	8.6	6,820	394	43	78	52	86	79	65	28
WV	Charleston	47	48	54	5.8	6.9	4.8	4,589	1,064	55	84	57	78	63	90	60
WI	Milwaukee	55	52	61	11.5	12.6	9.7	7,096	616	42	80	66	76	70	82	64
WY	Cheyenne	60	64	44	12.9	15.2	10.4	7,289	280	43	66	45	58	51	70	38
PR	San Juan	40	76	46	8.4	8.4	9.7	-	5,426	47	79	65	82	65	79	67

- Represents zero. ¹ Percent of days that are either clear or partly cloudy. ² Airport data for sunshine. ³ Does not represent airport data.

Source: U.S. National Oceanic and Atmospheric Administration, *Comparative Climatic Data*, annual.