

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, U.S. Geological Survey, National Oceanic and Atmospheric Administration (NOAA), Natural Resources Conservation Service, and General Services Administration. New information on pollution abatement expenditures may be found in Tables 382 and 383 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 TIGER® database, rather than relying on historical, local, and manually calculated information. Information from the 2000 census may be found in Table 359.

Geography—The U.S. Geological Survey 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 U.S. Geological Survey 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 U.S. Geological Survey*.

In a joint project with the U.S. Census Bureau, during the 1980s, the U.S. Geological Survey provided the basic information on geographic features for input into a national geographic and cartographic database prepared by the Census Bureau, called the TIGER® (Topologically Integrated Geographic Encoding and Referencing) 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, however. 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 Census Bureau maintains a current inventory of governmental units and their legal boundaries primary through its Boundary and Annexation Survey. The information is available to the public in the several files, all available on line: TIGER/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 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/>>. EPA released in 2003 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 if new health or welfare data indicates that a change is necessary. The standard for photochemical oxidants, now called ozone, was revised in February 1979. Also, a new NAAQS for lead was promulgated in October 1978 and for suspended particulate matter in 1987. Table 371 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 U.S. EPA, is a valuable source of information regarding toxic chemicals that are being used, manufactured, treated, transported, or released into the environment. Two rules, Section

313 of the Emergency Planning and Community Right-To-Know Act (EPCRA) and Section 6607 of the Pollution Prevention Act (PPA), mandate that a publicly accessible toxic chemical database be developed and maintained by U.S. 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 "otherwise use" of listed chemicals. Facilities must report their releases and other waste management quantities. Federal facilities have been required to report since 1994, 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 data on climate. 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. 359. 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.

No. 360. Total and Federally Owned Land by State: 2002

[As of end of fiscal year; see text, Section 8. Total land area figures are not comparable with those in Table 359]

State	Total (1,000 acres)	Not owned by federal government		State	Total (1,000 acres)	Not owned by federal government			
		(1,000 acres)	Owned by federal government ¹ Acres Percent			(1,000 acres)	Owned by federal government ¹ Acres Percent		
United States	2,271,343	1,597,076	674,267	29.7					
Alabama	32,678	31,472	1,206	3.7	Missouri	44,248	41,989	2,260	5.1
Alaska	365,482	118,175	247,307	67.7	Montana	93,271	64,033	29,238	31.3
Arizona	72,688	36,277	36,411	50.1	Nebraska	49,032	47,560	1,471	3.0
Arkansas	33,599	29,580	4,019	12.0	Nevada	70,264	5,809	64,456	91.7
California	100,207	53,129	47,078	47.0	New Hampshire	5,769	4,938	831	14.4
Colorado	66,486	43,291	23,195	34.9	New Jersey	4,813	4,627	187	3.9
Connecticut	3,135	3,120	15	0.5	New Mexico	77,766	51,173	26,593	34.2
Delaware	1,266	1,229	37	2.9	New York	30,681	30,353	328	1.1
District of Columbia	39	28	12	29.5	North Carolina	31,403	27,905	3,498	11.1
Florida	34,721	30,108	4,614	13.3	North Dakota	44,452	43,110	1,343	3.0
Georgia	37,295	34,987	2,308	6.2	Ohio	26,222	25,770	452	1.7
Hawaii	4,106	3,433	673	16.4	Oklahoma	44,088	42,751	1,337	3.0
Idaho	52,933	18,518	34,415	65.0	Oregon	61,599	30,955	30,644	49.7
Illinois	35,795	35,129	666	1.9	Pennsylvania	28,804	28,072	732	2.5
Indiana	23,158	22,624	534	2.3	Rhode Island	677	672	5	0.8
Iowa	35,860	35,554	307	0.9	South Carolina	19,374	18,140	1,235	6.4
Kansas	52,511	51,916	595	1.1	South Dakota	48,882	46,515	2,367	4.8
Kentucky	25,512	23,839	1,673	6.6	Tennessee	26,728	24,772	1,955	7.3
Louisiana	28,868	27,368	1,500	5.2	Texas	168,218	165,018	3,200	1.9
Maine	19,848	19,685	163	0.8	Utah	52,697	17,672	35,025	66.5
Maryland	6,319	6,111	208	3.3	Vermont	5,937	5,486	450	7.6
Massachusetts	5,035	4,930	105	2.1	Virginia	25,496	22,947	2,550	10.0
Michigan	36,492	32,853	3,639	10.0	Washington	42,694	29,537	13,156	30.8
Minnesota	51,206	47,660	3,546	6.9	West Virginia	15,411	14,182	1,229	8.0
Mississippi	30,223	28,241	1,982	6.6	Wisconsin	35,011	33,025	1,986	5.7
					Wyoming	62,343	30,812	31,531	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. 361. Nonfederal Developed Land Use by State and Other Area: 1997

[In thousands of acres (1,944,130 represents 1,944,130,000), except percent. Excludes Alaska and District of Columbia. Developed land includes large urban and built-up areas, small built-up areas, and rural transportation land categories of use]

State and other area	Total surface area	Developed land			State and other area	Total surface area	Developed land		
		Total	Percent of total	Change, 1992-97			Total	Percent of total	Change, 1992-97
Total	1,944,130	98,252	5.0	11,217	Montana	94,110	1,032	1.1	76
United States	1,941,823	97,745	5.0	11,105	Nebraska	49,510	1,206	2.5	55
Alabama	33,424	2,252	6.8	315	Nevada	70,763	581	0.6	27
Arizona	72,964	1,491	2.1	114	New Hampshire	5,941	389	10.0	63
Arkansas	34,037	1,409	4.2	169	New Jersey	5,216	1,778	34.1	214
California	101,510	5,456	5.4	553	New Mexico	77,823	1,153	1.5	217
Colorado	66,625	1,652	2.5	113	New York	31,361	3,184	10.2	318
Connecticut	3,195	874	27.4	39	North Carolina	33,709	3,856	11.5	507
Delaware	1,534	226	14.8	23	North Dakota	45,251	992	2.2	33
Florida	37,534	5,185	13.9	825	Ohio	26,445	3,611	13.7	365
Georgia	37,741	3,957	10.5	852	Oklahoma	44,738	1,926	4.4	177
Hawaii	4,158	180	4.4	7	Oregon	62,161	1,222	2.0	104
Idaho	53,488	755	1.5	92	Pennsylvania	28,995	3,983	13.8	545
Illinois	36,059	3,181	8.9	247	Rhode Island	813	201	24.7	7
Indiana	23,158	2,260	9.8	195	South Carolina	19,939	2,097	10.6	362
Iowa	36,017	1,702	4.8	69	South Dakota	49,358	960	2.0	58
Kansas	52,661	1,940	3.7	97	Tennessee	26,974	2,371	8.8	402
Kentucky	25,863	1,738	6.8	237	Texas	171,052	8,567	5.1	894
Louisiana	31,377	1,624	5.2	134	Utah	54,339	662	1.3	81
Maine	20,966	712	3.4	111	Vermont	6,154	318	5.2	12
Maryland	7,870	1,236	15.8	178	Virginia	27,087	2,626	9.7	344
Massachusetts	5,339	1,479	27.8	212	Washington	44,035	2,065	4.7	241
Michigan	37,349	3,546	9.5	364	West Virginia	15,508	874	5.7	177
Minnesota	54,010	2,186	4.1	232	Wisconsin	35,920	2,418	6.8	188
Mississippi	30,527	1,474	4.9	206	Wyoming	62,603	644	1.1	34
Missouri	44,614	2,517	5.7	224	Caribbean	2,307	507	22.0	112

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/summary-report>> (revised December 2000).

No. 362. 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	1,883	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	1,017	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.nhq.nrcs.usda.gov/NRI/1997/summaryreport/report.pdf>>.

No. 363. Extreme and Mean Elevations by State and Other Area

[One foot=.305 meter]

State and other area	Highest point			Lowest point			Approximate mean elevation	
	Name	Elevation		Name	Elevation		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. 364. 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 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	1986	1997	Change, 1986 to 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 nonvegetated	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 nonvegetated	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. 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. 365. 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) ¹	3,446	8,926
Buzzards Bay (MA)	215	558	Great Salt Lake (UT)	1,836	4,756
Tangier 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	Montague Strait	463	1,198
Pacific Coast water bodies:			Bearchof 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™ database.

No. 366. Flows of Largest U.S. Rivers—Length, Discharge, and Drainage Area

River	Location of mouth	Source stream (name and location)	Length (miles) ¹	Average discharge at mouth (1,000 cubic ft. per second)		Drainage area (1,000 sq. mi.)
Missouri	Missouri	Red Rock Creek, MT	2,540	76.2		2,529
Mississippi	Louisiana	Mississippi River, MN	2,340	593		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 tributary 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. 367. U.S. Water Withdrawals and Consumptive Use Per Day by End Use: 1940 to 1995

[Includes Puerto Rico. Withdrawal signifies water physically withdrawn from a source. Includes fresh and saline water; excludes water used for hydroelectric power]

Year	Public supply ²			Rural ⁴	Industrial and misc. ⁵	Steam electric utilities		
	Total (bil. gal.)	Per capita ¹ (gal.)	Irrigation (bil. gal.)				Total (bil. gal.)	Per capita ³ (gal.)
WITHDRAWALS								
1940	140	1,027	71	10	75	3.1	29	23
1950	180	1,185	89	14	145	3.6	37	40
1955	240	1,454	110	17	148	3.6	39	72
1960	270	1,500	110	21	151	3.6	38	100
1965	310	1,602	120	24	155	4.0	46	130
1970	370	1,815	130	27	166	4.5	47	170
1975	420	1,972	140	29	168	4.9	45	200
1980	440	1,953	150	34	183	5.6	45	210
1985	399	1,650	137	38	189	7.8	31	187
1990	408	1,620	137	41	195	7.9	30	195
1995	402	1,500	134	40	192	8.9	29	190
CONSUMPTIVE USE								
1960	61	339	52	3.5	25	2.8	3.0	0.2
1965	77	403	66	5.2	34	3.2	3.4	0.4
1970	87	427	73	5.9	36	3.4	4.1	0.8
1975	96	451	80	6.7	38	3.4	4.2	1.9
1980	100	440	83	7.1	38	3.9	5.0	3.2
1985	92	380	74	(⁶)	(⁶)	9.2	6.1	6.2
1990	94	370	76	(⁶)	(⁶)	8.9	6.7	4.0
1995	100	374	81	(⁶)	(⁶)	9.9	4.8	3.7

¹ Based on U.S. Census Bureau resident population as of July 1. ² Includes commercial water withdrawals. ³ Based on population served. ⁴ Rural farm and nonfarm household and garden use, and water for farm stock and dairies. ⁵ 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. ⁶ 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 1995*, circular 1200, and previous quinquennial issues. Next update expected in 2003 will include data for 2000.

No. 368. Water Withdrawals and Consumptive Use—State and Other Areas: 1995

[In millions of gallons per day (401,500 represents 401,500,000,000), except as noted. Figures may not add due to rounding. Withdrawal signifies water physically withdrawn from a source. Includes fresh and saline water]

State and other area	Per capita (gal. per day) fresh		Source		Selected major uses				Consumptive use, ¹ fresh water
	Total		Ground water	Surface water	Irrigation	Public supply	Industrial	Thermo-electric	
U.S.²	401,500	1,280	77,500	324,000	134,000	43,600	26,200	190,000	100,000
Alabama	7,100	1,670	445	6,650	139	875	753	5,200	532
Alaska	329	350	132	196	0.6	90	197	30	25
Arizona	6,830	1,620	2,840	3,990	5,670	846	197	62	3,830
Arkansas	8,800	3,540	5,460	3,340	5,940	419	187	1,780	4,140
California	45,900	1,130	14,700	31,300	28,900	5,740	802	9,630	25,500
Colorado	13,800	3,690	2,270	11,600	12,700	732	191	115	5,230
Connecticut	4,450	389	166	4,290	28	448	11	3,940	97
Delaware	1,500	1,050	110	1,390	48	101	64	1,270	71
District of Columbia	10	18	1	10	-	-	1	10	15
Florida	18,200	509	4,340	13,800	3,470	2,360	649	11,600	2,780
Georgia	5,820	799	1,190	4,630	722	1,250	676	3,070	1,170
Hawaii	1,930	853	531	1,400	652	218	20	970	542
Idaho	15,100	13,000	2,830	12,300	13,000	254	76	-	4,360
Illinois	19,900	1,680	953	19,000	180	1,950	527	17,100	857
Indiana	9,140	1,570	709	8,430	116	784	2,410	5,690	505
Iowa	3,030	1,070	528	2,510	39	418	301	2,130	290
Kansas	5,240	2,040	3,510	1,720	3,380	384	77	1,260	3,620
Kentucky	4,420	1,150	226	4,190	12	521	375	3,450	318
Louisiana	9,850	2,270	1,350	8,500	769	677	2,580	5,480	1,930
Maine	326	178	80	246	27	135	16	136	48
Maryland	7,730	289	246	7,480	57	907	331	6,360	150
Massachusetts	5,510	189	351	5,160	82	759	88	4,570	180
Michigan	12,100	1,260	862	11,200	227	1,490	1,910	8,370	667
Minnesota	3,390	736	714	2,680	157	573	438	2,090	417
Mississippi	3,200	1,140	2,590	614	1,740	377	294	375	1,570
Missouri	7,030	1,320	891	6,140	567	757	63	5,550	692
Montana	8,860	10,200	217	8,640	8,550	161	80	22	1,960
Nebraska	10,500	6,440	6,200	4,350	7,550	328	175	2,350	7,020
Nevada	2,300	1,480	896	1,400	1,640	479	95	27	1,340
New Hampshire	1,320	388	81	1,240	6.3	130	50	1,110	35
New Jersey	6,110	269	580	5,530	125	1,120	486	4,360	210
New Mexico	3,510	2,080	1,700	1,800	2,990	337	69	55	1,980
New York	16,800	567	1,010	15,800	30	3,140	321	13,100	469
North Carolina	9,290	1,070	535	8,750	239	939	385	7,420	713
North Dakota	1,120	1,750	122	1,000	117	85	17	819	181
Ohio	10,500	944	905	9,620	27	1,560	650	8,190	791
Oklahoma	2,040	543	1,220	822	864	597	285	124	716
Oregon	7,910	2,520	1,050	6,860	6,170	572	379	9.0	3,210
Pennsylvania	9,680	802	860	8,820	16	1,730	1,930	5,930	565
Rhode Island	411	138	27	383	2	121	7	275	19
South Carolina	6,200	1,690	322	5,880	53	614	703	4,810	321
South Dakota	460	631	187	273	269	97	32	5	249
Tennessee	10,100	1,920	435	9,640	24	831	868	8,300	233
Texas	29,600	1,300	8,780	20,800	9,450	3,420	2,920	13,500	10,500
Utah	4,460	2,200	790	3,670	3,530	506	253	48	2,200
Vermont	565	967	50	515	3.9	66	12	452	24
Virginia	8,260	826	358	7,900	30	911	622	6,620	218
Washington	8,860	1,620	1,760	7,100	6,470	1,300	652	376	3,080
West Virginia	4,620	2,530	146	4,470	-	217	1,330	3,010	352
Wisconsin	7,250	1,420	759	6,490	169	692	453	5,820	443
Wyoming	7,060	14,700	335	6,720	6,590	100	118	220	2,800
Puerto Rico	2,840	154	135	2,680	107	443	15	2,260	187
Virgin Islands	202	113	0.7	201	-	7.8	20	173	1.9

- Represents zero. ¹ Water that has been evaporated, transpired, or incorporated into products, plant or animal tissue; and therefore, is not available for immediate reuse. ² Includes Puerto Rico and Virgin Islands.

Source: U.S. Geological Survey, *Estimated Use of Water in the United States in 1995*, circular 1200. Next update expected in 2003 will include data for 2000.

No. 369. 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 2 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 accessed¹	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. 370. Oil Spills in U.S. Water—Number and Volume: 1997 to 2000

[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)			
	1997	1998	1999	2000	1997	1998	1999	2000
Total	8,624	8,315	8,539	8,354	942,574	885,303	1,172,449	1,431,370
Size of spill (gallons):								
1-100	8,299	7,962	8,212	8,058	39,082	38,093	39,119	39,355
101-1,000	243	259	240	219	81,895	86,606	86,530	78,779
1,001-3,000	40	54	42	37	78,117	96,743	74,582	67,529
3,001-5,000	14	15	18	12	58,016	64,609	73,798	45,512
5,001-10,000	15	15	10	16	109,288	108,148	66,274	112,415
10,001-50,000	11	8	12	6	282,176	216,335	301,510	108,400
50,001-100,000	1	-	4	4	84,000	-	245,406	266,380
100,000-1,000,000	1	2	1	2	210,000	274,769	285,230	713,000
1,000,000 and over	-	-	-	-	-	-	-	-
Waterbody:								
Atlantic ocean	87	109	148	150	40,857	6,674	29,440	135,010
Pacific ocean	505	644	758	623	32,841	192,775	150,694	36,301
Gulf of Mexico	2,341	2,190	1,756	1,838	105,462	181,372	45,786	112,069
Great Lakes	156	119	129	96	4,311	3,006	906	4,535
Lakes	29	25	31	32	210,270	63	624	349
Rivers and canals	1,821	1,944	1,924	1,816	182,676	280,651	504,264	663,404
Bays and sounds	811	891	1,299	1,248	46,450	24,234	136,650	49,783
Harbors	858	790	907	801	45,932	97,223	105,213	273,095
Other	2,016	1,603	1,587	1,750	273,775	99,305	198,872	156,824
Source:								
Tankship	124	104	92	111	22,429	56,673	8,414	608,176
Tankbarge	252	220	227	229	165,649	248,089	158,977	133,540
All other vessels	4,971	4,848	5,361	5,220	192,801	316,473	409,084	291,927
Facilities	838	937	1,019	1,054	204,935	166,269	367,537	311,604
Pipelines	32	45	25	25	224,122	47,863	36,140	17,021
All other nonvessels	486	571	571	566	72,208	32,584	147,704	45,136
Unknown	1,921	1,590	1,244	1,149	60,430	17,352	44,593	23,966

- Represents or rounds to zero.

Source: U.S. Coast Guard, <<http://www.uscg.mil/hq/g-m/nmc/response/stats/Summary.htm>> (accessed 05 December 2001).

No. 371. 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, nonoverlapping, 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 0.12	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	0.03	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	0.053	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 0.12 ppm. ⁴ Based on 8-hour standard of 0.08 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. 372. National Air Pollutant Emissions: 1970 to 2001

[In thousands of tons, 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 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 3 years; data for 1997 forward are currently not available.

No. 373. Air Pollutant Emissions by Pollutant and Source: 2001

[In thousands of tons, except as indicated. See headnote, Table 372]

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	-	1	4	5,053	50
Storage and transport	86	41	6	11	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 ²	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 372. 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 371-373: U.S. Environmental Protection Agency, *Latest Findings on National Air Quality, 2001 Status and Trends*, EPA 454/K-02-001, September 2002. See also <<http://www.epa.gov/ttn/chieftrends/index.html#tables>>.

No. 374. Emissions of Greenhouse Gases by Type and Source: 1990 to 2001

[1,682.5 represents 1,682,500,000 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 content. Both measures are utilized below]

Type and source	Unit	1990	1995	1998	1999	2000	2001
CARBON EQUIVALENT							
Total emissions tons	Mil. metric tons	1,682.5	1,774.9	1,842.4	1,861.0	1,907.1	1,883.4
Carbon dioxide, total	Mil. metric tons	1,364.4	1,451.2	1,526.3	1,547.1	1,596.8	1,578.7
Energy sources	Mil. metric tons	1,359.5	1,434.1	1,512.3	1,530.1	1,578.3	1,558.7
C02 in natural gas	Mil. metric tons	3.8	4.6	4.9	4.8	4.9	5.0
Cement production	Mil. metric tons	9.1	10.1	10.7	10.9	11.3	11.4
Gas flaring	Mil. metric tons	-2.5	4.7	1.7	1.8	1.7	1.7
Other industrial	Mil. metric tons	7.3	7.6	8.1	8.0	8.0	7.4
Waste combustion	Mil. metric tons	4.8	6.3	6.9	7.1	6.1	6.1
Other adjustments	Mil. metric tons	-22.6	-16.1	-18.3	-15.6	-13.4	-11.7
Methane	Mil. metric tons	199	195	182	180	178	176
Nitrous oxide	Mil. metric tons	94	102	99	100	98	97
HFCs, PFCs, and SF ₆	Mil. metric tons	25	27	35	34	34	31
NATIVE GAS							
Carbon dioxide	Mil. metric tons	5,002.8	5,320.9	5,596.4	5,672.8	5,855.1	5,788.5
Methane, total	Mil. metric tons	31.68	31.13	29.03	28.74	28.33	28.02
Energy sources	Mil. metric tons	11.94	11.62	11.05	11.02	11.06	10.58
Waste management	Mil. metric tons	11.36	10.33	8.86	8.59	8.02	8.13
Agricultural sources	Mil. metric tons	8.26	9.05	8.99	9.00	9.13	9.19
Industrial sources	Mil. metric tons	0.12	0.13	0.13	0.13	0.13	0.11
Nitrous oxide, total ¹	1,000 metric tons	1,170	1,259	1,223	1,238	1,219	1,207
Agriculture	1,000 metric tons	846	861	875	870	859	852
Energy sources	1,000 metric tons	211	269	271	293	285	284
Waste management	1,000 metric tons	17	18	18	19	20	20
Industrial sources	1,000 metric tons	96	111	58	57	56	51
Hydrofluorocarbons (HFCs):							
HFC-23	1,000 metric tons	3.0	2.3	3.5	2.7	2.6	1.8
HFC-125	1,000 metric tons	-	0.5	1.1	1.3	1.6	1.9
HFC-134a	1,000 metric tons	0.6	12.2	23.1	26.1	28.9	31.6
HFC-143a	1,000 metric tons	-	0.1	0.5	0.7	0.9	1.1
Perfluorocarbons (PFCs):							
CF ₄	1,000 metric tons	3	2	2	2	1	1
C ₂ F ₆	1,000 metric tons	(Z)	(Z)	1	1	1	(Z)
C ₄ F ₁₀	1,000 metric tons	(Z)	(Z)	(Z)	(Z)	(Z)	(Z)
Sulfur hexafluoride (SF ₆)	1,000 metric tons	2	1	1	1	1	1

- Represents zero. Z Less than 50 or 500 metric tons. ¹ Includes sources not shown separately.

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/oiat/1605/cdrom/pdf/ggpr/057301.pdf>> (issued 20 December 2002).

No. 375. 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	2.7	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. 376. 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 postconsumer 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. 377. Curbside Recycling Programs—Number and Population Served by Region: 1995 to 2001

[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. 378. 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 off-site 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 POTWs 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. 379. Toxic Chemical Releases by Industry: 2001

[In millions of pounds (6,158.0 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	Total	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. 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 378 and 379: U.S. Environmental Protection Agency, *Toxics Release Inventory*, annual.

No. 380. 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 378]

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	NE	16.7	9.9	8.6	10.3	12.2
U.S. total.	3,138.3	1,865.5	1,704.2	1,633.3	1,430.1	NV	2.3	3.7	5.4	4.1	3.2
AL	109.5	75.9	73.6	66.7	61.0	NH	13.8	2.3	2.4	2.3	1.2
AK	3.7	0.3	0.2	0.3	0.5	NJ	46.7	11.3	11.3	11.3	26.8
AZ	61.5	50.9	47.7	38.7	52.7	NM	29.3	23.3	19.6	0.5	0.6
AR	40.8	38.6	38.8	44.8	33.5	NY	98.5	21.7	18.8	17.5	13.6
CA	107.9	23.9	23.2	23.4	16.7	NC	124.0	49.2	46.7	40.8	35.8
CO	15.4	3.1	3.0	2.8	2.5	ND	1.2	1.2	1.1	0.8	0.9
CT	37.9	6.0	4.5	4.5	3.6	OH	200.2	125.8	116.1	108.4	90.5
DE	8.7	5.8	5.2	5.6	5.2	OK	30.5	13.9	13.6	13.6	12.3
DC	-	(Z)	(Z)	(Z)	-	OR	21.2	27.3	24.9	24.0	21.9
FL	32.7	30.5	29.5	31.8	26.3	PA	133.7	82.6	81.3	88.0	97.5
GA	85.2	47.5	46.4	44.8	35.3	RI	7.8	1.6	1.2	1.1	0.9
HI	0.8	0.3	0.3	0.4	0.4	SC	65.8	50.2	55.8	51.6	52.0
ID	7.3	12.7	14.6	13.0	8.6	SD	2.4	1.4	1.1	1.2	1.1
IL	137.6	82.4	79.3	77.2	67.8	TN	126.0	84.8	88.5	81.2	62.8
IN	181.0	190.8	109.7	104.0	106.5	TX	317.8	172.8	169.0	150.9	130.2
IA	42.3	24.4	25.0	24.8	19.2	UT	122.2	93.3	77.2	101.5	48.4
KS	30.2	17.5	20.1	16.8	12.8	VT	1.7	0.2	0.2	0.1	0.1
KY	64.7	31.1	31.1	27.8	28.6	VA	112.2	39.6	39.4	34.6	31.6
LA	128.7	91.6	78.9	80.0	70.3	WA	30.5	24.1	17.3	16.6	11.7
ME	15.5	6.6	5.9	6.3	5.0	WV	39.3	16.3	11.8	10.2	9.0
MD	19.6	8.7	9.2	10.6	7.7	WI	61.1	33.7	31.7	29.0	25.5
MA	32.1	6.5	4.9	4.8	4.5	WY	2.0	1.2	1.3	1.2	0.8
MI	139.2	73.0	63.6	52.4	59.9	American Samoa	-	-	-	-	-
MN	55.3	14.6	14.3	15.3	13.5	Guam	-	-	-	-	-
MS	58.5	42.7	41.5	43.1	36.3	Puerto Rico	12.9	6.6	5.2	5.3	4.8
MO	82.2	44.3	43.4	46.0	43.0	Virgin Island.	2.6	0.9	0.5	0.4	0.8
MT	33.5	44.2	45.7	46.6	18.2						

- Represents zero. Z Less than 50,000.

Source: U.S. Environmental Protection Agency, *Toxics Release Inventory*, annual.

No. 381. Hazardous Waste Sites on the National Priority List by State and Outlying Area: 2002

[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	1,278	(X)	100.0	163	1,115	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	19	20	1.5	1	18
Arizona	9	41	0.7	2	7	New Jersey	115	1	9.0	8	107
Arkansas	12	32	0.9	-	12	New Mexico	12	32	0.9	1	11
California	98	2	7.7	24	74	New York	91	4	7.1	4	87
Colorado	17	22	1.3	3	14	North Carolina	28	15	2.2	2	26
Connecticut	16	23	1.3	1	15	North Dakota	-	50	-	-	-
Delaware	15	24	1.2	1	14	Ohio	33	11	2.6	5	28
District of Columbia	1	(X)	0.1	1	-	Oklahoma	11	38	0.9	1	10
Florida	52	6	4.1	6	46	Oregon	12	32	0.9	2	10
Georgia	15	24	1.2	2	13	Pennsylvania	96	3	7.5	6	90
Hawaii	3	46	0.2	2	1	Rhode Island	12	32	0.9	2	10
Idaho	10	40	0.8	2	8	South Carolina	25	16	2.0	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	43	9	3.4	4	39
Kansas	12	32	0.9	2	10	Utah	21	19	1.6	4	17
Kentucky	14	29	1.1	1	13	Vermont	9	41	0.7	-	9
Louisiana	15	24	1.2	1	14	Virginia	30	13	2.3	11	19
Maine	12	32	0.9	3	9	Washington	47	7	3.7	14	33
Maryland	19	20	1.5	9	10	West Virginia	9	41	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	17	1.9	2	22	Guam	2	(X)	(X)	1	1
Mississippi	4	45	0.3	-	4	Puerto Rico	9	(X)	(X)	-	9
Missouri	23	18	1.8	3	20	Virgin Islands	2	(X)	(X)	-	2

- Represents zero. X Not applicable.

Source: U.S. Environmental Protection Agency, *Supplementary Materials: National Priorities List, Proposed Rule*, December 2002.

No. 382. Pollution Abatement Capital Expenditures and Operating Costs by Media and Industry: 1999

[In millions of dollars. 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 ¹	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

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

No. 383. Pollution Abatement Capital Expenditures and Operating Costs by Media and State: 1999

[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
U.S. ¹	5,809.9	59.6	22.6	11,864.4	42.7	MO	89.4	78.7	6.0	118.5	31.5
AL	45.7	50.5	54.3	53.0	18.5	MT	58.4	66.1	45.2	267.7	32.4
AK	30.2	8.6	0.7	59.2	22.0	NE	382.7	92.7	6.3	224.9	38.3
AZ	63.6	54.4	52.5	133.4	23.8	NV	114.1	51.5	8.9	318.5	46.0
AR	204.6	0.4	0.3	35.6	21.6	NH	107.9	76.8	26.4	205.6	28.6
CA	3.1	22.6	74.2	9.4	(D)	NJ	166.0	66.4	25.1	263.0	36.6
CO	28.5	54.7	22.5	10.9	(D)	NM	145.5	69.5	33.8	259.8	40.9
CT	57.0	78.4	24.6	165.1	32.1	NY	71.9	43.4	6.0	151.1	46.9
DE	160.6	76.6	78.3	310.0	51.3	NC	156.6	63.5	11.0	331.6	30.4
FL	422.2	87.1	7.2	534.0	39.6	ND	91.9	31.1	12.3	183.8	36.5
GA	172.2	43.5	19.0	511.5	36.1	OH	228.8	43.6	29.9	522.7	39.7
HA	128.5	76.3	44.6	638.4	43.6	OK	34.0	90.6	44.1	78.8	42.3
ID	160.1	62.3	23.2	394.0	35.0	OR	617.6	58.0	38.3	1,679.2	45.9
IL	271.5	57.3	11.6	947.9	57.2	PA	58.4	67.8	68.0	70.9	61.4
IN	163.1	18.4	5.5	196.0	18.8	RI	19.9	37.2	21.6	49.9	33.3
IA	42.5	46.8	3.1	138.0	26.7	SC	16.9	36.1	17.8	54.4	28.5
KS	40.8	54.2	36.5	145.7	9.7	SD	4.6	87.0	—	21.3	55.4
KY	120.4	41.8	14.4	293.6	44.2	TN	11.0	57.3	52.7	44.9	47.9
LA	209.4	84.5	54.7	180.0	45.1	TX	29.4	44.2	25.5	100.7	60.3
ME	18.5	53.0	20.0	39.5	17.2	UT	21.0	79.0	19.5	55.5	48.5
MD	17.2	79.7	1.2	64.4	70.0	VT	60.8	98.2	—	41.6	66.8
MA	3.0	36.7	3.3	8.0	27.5	VA	63.7	17.4	0.2	34.4	37.8
MI	87.0	96.6	5.6	88.8	58.8	WA	253.5	46.2	16.8	830.1	55.8
MN	127.0	29.8	15.0	410.2	58.8	WV	12.5	16.0	—	5.0	28.0
MS	210.8	46.7	26.9	241.0	31.2	WI	61.3	45.2	8.6	80.0	44.3
						WY	144.5	71.5	13.4	254.9	42.4

- Represents zero. D Withheld to avoid disclosing data for individual companies. ¹ Includes offshore, not shown separately. Source of Tables 382 and 383: U.S. Census Bureau, Current Industrial Reports, *Pollution Abatement Costs and Expenditures: 1999*, Series MA200(99).

No. 384. Environmental Industry—Revenues and Employment, by Industry Segment: 1990 to 2002

[152.2 represents \$152,200,000,000. . Covers approximately 59,000 private and public companies engaged in environmental activities]

Industry segment	Revenue (bil. dol.)				Employment (1,000)			
	1990	1995	2000	2002	1990	1995	2000	2002
Industry total	152.2	182.9	208.7	221.3	1,223.8	1,374.7	1,452.9	1,510.0
Analytical services ¹	1.5	1.3	1.3	1.3	18.0	15.6	14.9	15.0
Wastewater treatment works ²	19.8	23.4	27.8	30.2	88.8	101.5	114.8	123.7
Solid waste management ³	26.1	32.5	39.4	42.7	205.5	243.4	266.3	284.4
Hazardous waste management ⁴	6.3	6.2	5.1	4.7	53.8	52.5	41.8	38.6
Remediation/industrial services	11.1	11.1	11.2	11.1	133.3	125.9	110.7	105.9
Consulting & engineering	12.5	15.5	17.4	18.7	147.1	180.3	184.0	193.7
Water equipment & chemicals	13.5	16.5	19.8	20.8	92.7	110.3	130.5	135.3
Instrument manufacturing	2.0	3.0	3.6	3.9	18.0	26.2	29.4	30.9
Air pollution control equipment ⁵	13.1	14.8	17.6	18.6	96.4	105.9	119.7	126.0
Waste management equipment ⁶	8.7	9.8	9.9	9.9	69.6	75.5	74.6	74.1
Process & prevention technology	0.4	0.8	1.2	1.4	9.3	19.5	29.0	30.9
Water utilities ⁷	19.8	25.3	29.9	32.3	98.5	118.2	130.0	139.1
Resource recovery ⁸	13.1	16.9	16.0	14.1	142.9	136.0	127.2	110.1
Clean energy systems & power	4.3	5.6	8.6	11.5	49.9	63.9	80.0	102.3

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. 385. Threatened and Endangered Wildlife and Plant Species—Number: 2003

[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	Mam- mals	Birds	Rep- tiles	Amphib- ians	Fishes	Snails	Clams	Crusta- ceans	Insects	Arach- nids	Plants
Total listings	342	273	115	30	126	33	72	21	48	12	749
Endangered species, total	316	253	78	20	82	22	64	18	39	12	600
United States	65	78	14	12	71	21	62	18	35	12	599
Foreign	251	175	64	8	11	1	2	-	4	-	1
Threatened species, total	26	20	37	10	44	11	8	3	9	-	149
United States	9	14	22	9	44	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/tess/html/boxscore.html>> (accessed 05 May 2003).

No. 386. Tornadoes, Floods, Tropical Storms, and Lightning: 1992 to 2002

Weather type	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Tornadoes: ¹											
Lives lost	39	33	69	30	26	67	130	94	41	40	55
Injuries	(NA)	(NA)	(NA)	650	705	1,033	1,868	1,842	882	743	968
Property loss (mil. dol.)	(NA)	(NA)	(NA)	410.8	719.6	730.7	1,714.2	1,989.9	423.6	630.1	801.3
Floods and flash floods:											
Lives lost	62	103	91	80	131	118	136	68	38	48	49
Injuries	(NA)	(NA)	(NA)	57	95	525	6,440	301	47	277	88
Property loss (mil. dol.)	(NA)	(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
North Atlantic tropical storms and hurricanes ²	7	8	7	19	13	7	14	12	15	15	12
Number of hurricanes reaching U.S. mainland	1	1	-	2	2	1	3	3	-	-	1
Direct deaths on U.S. mainland	27	2	9	17	37	1	9	19	-	24	53
Property loss in U.S. (mil. dol.)	26,500	57	973	5,932	1,436	668	3,547	4,190	8	5,188	1,104
Lightning:											
Deaths	41	43	69	85	52	42	44	46	51	44	51
Injuries	292	295	577	433	309	306	283	243	364	371	256

- Represents zero. NA Not available. ¹ Source: U.S. National Weather Service, Internet site <<http://www.spc.noaa.gov/climo/torn/monthlytornstats.html>> (accessed 20 May 2003). 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 maximum winds of 39 to 73 miles per hour; hurricanes have maximum 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 Web site at <<http://www.nws.noaa.gov/om/hazstats.shtml>>.

No. 387. Major U.S. Weather Disasters: 1985 to 2002

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

Event	Description	Time period	Esti-	Deaths
			mated cost (bil. dol.)	
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 and damage in MS, FL, VA, & 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 southeastern 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 tornadoes	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. 1999	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
Hurricane Hugo	Category 4 hurricane hit Puerto Rico & Virgin Islands, devastated NC & SC.	Sept. 1989	Over 9	86
Drought/Heat Wave.	Drought/heatwave over central & eastern U.S.	Summer 1988	40.0	5,000-10,000
Hurricane Juan.	Category 1 hurricane, flooding most severe problem, hit LA and southeast U.S.	Oct.-Nov. 1985	1.5	63
Hurricane Elena	Category 3 hurricane across FL to LA	Aug.-Sept. 1985	1.3	4
Florida Freeze	Severe freeze central/northern FL, damage to citrus industry.	Jan. 1985	1.2	-

- Represents zero. NA Not available or not reported.

Source: U.S. National Oceanic and Atmospheric Administration, National Climatic Data Center, "Billion Dollar U.S. Weather Disasters, 1980-2002" (release date: Jan. 1, 2003). See also <<http://www.ncdc.noaa.gov/oa/pub/data/special/billionuz-2002.pdf>> (released 02 January 2003).

No. 388. 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. 389. 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	66.0	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	68.4	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. 390. Highest Temperature of Record—Selected Cities

[In Fahrenheit degrees. Airport data, except as noted. For period of record through 2001]

State	Station	Length of record (yr.)	Month												Annual
			Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
AL	Mobile	60	84	82	90	94	100	102	104	105	99	93	87	81	105
AK	Juneau	57	57	57	61	72	82	86	90	83	73	61	56	54	90
AZ	Phoenix	64	88	92	100	105	113	122	121	116	118	107	95	88	122
AR	Little Rock	60	83	85	91	95	98	105	112	109	106	97	86	80	112
CA	Los Angeles	66	88	92	95	102	97	104	97	98	110	106	101	94	110
	Sacramento	51	70	76	88	95	105	115	114	110	108	104	87	72	115
	San Diego	61	88	90	93	98	96	101	95	98	111	107	97	88	111
	San Francisco	74	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	47	65	73	89	96	99	100	102	102	99	91	81	76	102
DE	Wilmington	54	75	78	86	94	96	100	102	101	100	91	85	75	102
DC	Washington	60	79	82	89	95	99	101	104	105	101	94	86	79	105
FL	Jacksonville	60	85	88	91	95	100	103	105	102	100	96	88	84	105
	Miami	59	88	89	92	96	96	98	98	98	97	95	89	87	98
GA	Atlanta	53	79	80	89	93	95	101	105	102	98	95	84	79	105
HI	Honolulu	32	88	88	88	91	93	92	94	93	95	94	93	89	95
ID	Boise	62	63	71	81	92	98	109	111	110	102	94	78	65	111
IL	Chicago	43	65	72	88	91	93	104	104	101	99	91	78	71	104
	Peoria	62	70	72	86	92	93	105	103	103	100	90	81	71	105
IN	Indianapolis	62	71	76	85	89	93	102	104	102	100	90	81	74	104
IA	Des Moines	62	65	73	91	93	98	103	105	108	101	95	81	69	108
KS	Wichita	49	75	87	89	96	100	110	113	110	108	95	85	83	113
KY	Louisville	54	77	77	86	91	95	102	106	101	104	92	84	76	106
LA	New Orleans	55	83	85	89	92	96	100	101	102	101	94	87	84	102
ME	Portland	61	64	64	88	85	94	98	99	103	95	88	74	71	103
MD	Baltimore	51	75	79	89	94	98	101	104	105	100	92	83	77	105
MA	Boston	50	66	70	89	94	95	100	102	102	100	90	79	76	102
MI	Detroit	43	62	70	81	89	93	104	102	100	98	91	77	69	104
	Sault Ste. Marie	61	45	49	75	85	89	93	97	98	95	80	67	62	98
MN	Duluth	60	52	55	78	88	90	94	97	97	95	86	71	55	97
	Minneapolis-St. Paul	63	58	61	83	95	96	102	105	102	98	90	77	68	105
MS	Jackson	38	82	85	89	94	99	105	106	107	104	95	88	84	107
MO	Kansas City	29	69	77	86	93	95	105	107	109	106	92	82	74	109
	St. Louis	44	76	85	89	93	94	102	107	107	104	94	85	76	107
MT	Great Falls	64	67	70	78	89	93	101	105	106	98	91	76	69	106
NE	Omaha	65	69	78	89	97	99	105	114	110	104	96	83	72	114
NV	Reno	60	70	75	83	89	96	103	104	105	101	91	77	70	105
NH	Concord	60	68	67	89	95	97	98	102	101	98	90	80	73	102
NJ	Atlantic City	58	78	75	87	94	99	106	104	103	99	90	84	77	106
NM	Albuquerque	62	69	76	85	89	98	107	105	101	100	91	77	72	107
NY	Albany	55	65	68	89	92	94	99	100	99	100	89	82	71	100
	Buffalo	58	72	71	81	94	90	96	97	99	98	87	80	74	99
	New York ¹	133	72	75	86	96	99	101	106	104	102	94	84	75	106
NC	Charlotte	62	78	81	90	93	100	103	103	103	104	98	85	78	104
	Raleigh	57	79	84	92	95	97	104	105	105	104	98	88	80	105
ND	Bismarck	62	62	69	81	93	98	107	109	109	105	95	79	65	109
OH	Cincinnati	40	69	75	84	89	93	102	103	102	98	88	81	75	103
	Cleveland	60	73	74	83	88	92	104	103	102	101	90	82	77	104
	Columbus	62	74	75	85	89	94	102	100	101	100	90	80	76	102
OK	Oklahoma City	48	80	92	93	100	104	105	110	110	108	96	87	86	110
OR	Portland	61	63	71	80	90	100	100	107	107	105	92	73	65	107
PA	Philadelphia	60	74	74	87	94	97	100	104	101	100	96	81	73	104
	Pittsburgh	49	69	76	82	89	91	98	103	100	97	87	82	74	103
RI	Providence	48	69	72	85	98	95	97	102	104	100	86	78	77	104
SC	Columbia	54	84	84	91	94	101	107	107	107	101	101	90	83	107
SD	Sioux Falls	56	66	70	87	94	100	110	108	108	104	94	81	63	110
TN	Memphis	60	78	81	85	94	99	104	108	107	103	95	86	81	108
	Nashville	62	78	84	86	91	97	106	107	104	105	94	84	79	107
TX	Dallas-Fort Worth	48	88	95	96	95	103	113	110	108	111	102	89	88	113
	El Paso	62	80	83	89	98	104	114	112	108	104	96	87	80	114
	Houston	32	84	91	91	95	99	103	104	107	109	96	89	85	109
UT	Salt Lake City	73	62	69	78	86	95	104	107	106	100	89	75	69	107
VT	Burlington	58	66	62	84	91	93	100	100	101	94	85	75	67	101
VA	Norfolk	53	78	82	88	97	100	101	103	104	99	95	86	80	104
	Richmond	72	80	83	93	96	100	104	105	102	103	99	86	81	105
WA	Seattle-Tacoma	57	64	70	75	85	93	96	100	99	98	89	74	64	100
	Spokane	54	59	63	71	90	96	101	103	108	98	86	67	56	108
WV	Charleston	54	79	79	89	94	93	98	104	101	102	92	85	80	104
WI	Milwaukee	61	62	68	82	91	93	101	103	103	98	89	77	68	103
WY	Cheyenne	66	66	71	74	83	91	100	100	96	95	83	75	69	100
PR	San Juan	47	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. 391. Lowest Temperature of Record—Selected Cities

[In Fahrenheit degrees. Airport data, except as noted. For period of record through 2001]

State	Station	Length of record (yr.)	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
AL	Mobile	60	3	11	21	32	43	49	60	59	42	30	22	8	3
AK	Juneau	57	-22	-22	-15	6	25	31	36	27	23	11	-5	-21	-22
AZ	Phoenix	64	17	22	25	32	40	50	61	60	47	34	25	22	17
AR	Little Rock	60	-4	-5	11	28	40	46	54	52	37	29	17	-1	-5
CA	Los Angeles	66	23	32	34	39	43	48	49	51	47	41	34	32	23
	Sacramento	51	23	23	26	31	36	41	48	49	43	36	26	18	18
	San Diego	61	29	36	39	41	48	51	55	57	51	43	38	34	29
	San Francisco	74	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	47	-26	-21	-6	9	28	37	44	36	30	17	1	-14	-26
DE	Wilmington	54	-14	-6	2	18	30	41	48	43	36	24	14	-7	-14
DC	Washington	60	-5	4	11	24	34	47	54	49	39	29	16	1	-5
FL	Jacksonville	60	7	19	23	34	45	47	61	59	48	36	21	11	7
	Miami	59	30	32	32	46	53	60	69	68	51	39	30	30	30
GA	Atlanta	53	-8	5	10	26	37	46	53	55	36	28	3	-	-8
HI	Honolulu	32	53	53	55	57	60	65	66	67	66	61	57	54	53
ID	Boise	62	-17	-15	6	19	22	31	35	34	23	11	-3	-25	-25
IL	Chicago	43	-27	-19	-8	7	24	36	40	41	28	17	1	-25	-27
	Peoria	62	-25	-19	-10	14	25	39	47	41	26	19	-2	23	-25
IN	Indianapolis	62	-27	-21	-7	16	28	37	44	41	28	17	-2	-23	-27
IA	Des Moines	62	-24	-26	-22	9	30	38	47	40	26	14	-4	-22	-26
KS	Wichita	49	-12	-21	-2	15	31	43	51	48	31	18	1	-16	-21
KY	Louisville	54	-22	-19	-1	22	31	42	50	46	33	23	-1	-15	-22
LA	New Orleans	55	14	16	25	32	41	50	60	60	42	35	24	11	11
ME	Portland	61	-26	-39	-21	8	23	33	40	33	23	15	3	-21	-39
MD	Baltimore	51	-7	-3	6	20	32	40	50	45	35	25	13	-	-7
MA	Boston	50	-12	-4	6	16	34	45	50	47	38	28	15	-7	-12
MI	Detroit	43	-21	-15	-4	10	25	36	41	38	29	17	9	-10	-21
	Sault Ste. Marie	61	-36	-35	-24	-2	18	26	36	29	25	16	-10	-31	-36
MN	Duluth	60	-39	-39	-29	-5	17	27	35	32	22	8	-23	-34	-39
	Minneapolis-St. Paul	63	-34	-32	-32	2	18	34	43	39	26	13	-17	-29	-34
MS	Jackson	38	2	10	15	27	38	47	51	55	35	26	17	4	2
MO	Kansas City	29	-17	-19	-10	12	30	42	51	43	31	17	1	-23	-23
	St. Louis	44	-18	-12	-5	22	31	43	51	47	36	23	1	-16	-18
MT	Great Falls	64	-37	-35	-29	-6	15	31	36	30	16	-11	-25	-43	-43
NE	Omaha	65	-23	-21	-16	5	27	38	44	43	25	13	-9	-23	-23
NV	Reno	60	-16	-16	-2	13	18	25	33	24	20	8	1	-16	-16
NH	Concord	60	-33	-37	-16	8	21	30	35	29	21	10	-5	-22	-37
NJ	Atlantic City	58	-10	-11	5	12	25	37	42	40	32	20	10	-7	-11
NM	Albuquerque	62	-17	-5	8	19	28	40	52	50	37	21	-7	-7	-17
NY	Albany	55	-28	-21	-21	10	26	36	40	34	24	16	5	-22	-28
	Buffalo	58	-16	-20	-7	12	26	35	43	38	32	20	9	-10	-20
	New York ²	133	-6	-15	3	12	32	44	52	50	39	28	5	-13	-15
NC	Charlotte	62	-5	5	4	24	32	45	53	53	39	24	11	2	-5
	Raleigh	57	-9	-	11	23	31	38	48	46	37	19	11	4	-9
ND	Bismarck	62	-44	-43	-31	-12	15	30	35	33	11	-10	-30	-43	-44
OH	Cincinnati	40	-25	-11	-11	15	27	39	47	43	31	16	1	-20	-25
	Cleveland	60	-20	-15	-5	10	25	31	41	38	32	19	3	-15	-20
	Columbus	62	-22	-13	-6	14	25	35	43	39	31	20	5	-17	-22
OK	Oklahoma City	48	-4	-3	3	20	37	47	53	51	36	16	11	-8	-8
OR	Portland	61	-2	-3	19	29	29	39	43	44	34	26	13	6	-3
PA	Philadelphia	60	-7	-4	7	19	28	44	51	44	35	25	15	1	-7
	Pittsburgh	49	-22	-12	-1	14	26	34	42	39	31	16	-1	-12	-22
RI	Providence	48	-13	-7	1	14	29	41	48	40	33	20	6	-10	-13
SC	Columbia	54	-1	5	4	26	34	44	54	53	40	23	12	4	-1
SD	Sioux Falls	56	-36	-31	-23	5	17	33	38	34	22	9	-17	-28	-36
TN	Memphis	60	-4	-11	12	29	38	48	52	48	36	25	9	-13	-13
	Nashville	62	-17	-13	2	23	34	42	51	47	36	26	-1	-10	-17
TX	Dallas-Fort Worth	48	4	7	15	29	41	51	59	56	43	29	20	-1	-1
	El Paso	62	-8	8	14	23	31	46	57	56	41	25	1	5	-8
	Houston	32	12	20	22	31	44	52	62	60	48	29	19	7	7
UT	Salt Lake City	73	-22	-30	2	14	25	35	40	37	27	16	-14	-21	-30
VT	Burlington	58	-30	-30	-20	2	24	33	39	35	25	15	-2	-26	-30
VA	Norfolk	53	-3	8	18	28	36	45	54	49	45	27	20	7	-3
	Richmond	72	-12	-10	11	23	31	40	51	46	35	21	10	-1	-12
WA	Seattle-Tacoma	57	-	1	11	29	28	38	43	44	35	28	6	6	-
	Spokane	54	-22	-24	-7	17	24	33	37	35	22	10	-21	-25	-25
WV	Charleston	54	-16	-12	-	19	26	33	46	41	34	17	6	-12	-16
WI	Milwaukee	61	-26	-26	-10	12	21	33	40	44	28	18	-5	-20	-26
WY	Cheyenne	66	-29	-34	-21	-8	16	25	38	36	8	-1	-16	-28	-34
PR	San Juan	47	61	62	60	64	66	69	69	70	69	46	66	63	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. 392. 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	3.12	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
VT	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. 393. Average Number of Days With Precipitation of 0.01 Inch or More—Selected Cities

[Airport data, except as noted. For period of record through 2001]

State	Station	Length of record (yr.)	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
AL	Mobile	60	11	9	10	7	8	11	16	14	10	6	8	10	121
AK	Juneau	57	18	17	18	17	17	15	17	18	21	24	20	21	224
AZ	Phoenix	62	4	4	4	2	1	1	4	5	3	3	3	4	36
AR	Little Rock	59	10	9	10	10	10	8	8	7	7	7	8	9	104
CA	Los Angeles	66	6	6	6	3	1	1	1	(Z)	1	2	3	5	35
	Sacramento	62	10	9	9	5	3	1	(Z)	(Z)	1	3	7	9	58
	San Diego	61	7	6	7	4	2	1	(Z)	(Z)	1	2	4	6	42
	San Francisco	74	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	47	11	10	12	11	12	11	10	10	9	9	11	12	127
DE	Wilmington	54	11	10	11	11	11	10	9	9	8	8	9	10	117
DC	Washington	60	10	9	11	10	11	10	10	9	8	7	8	9	112
FL	Jacksonville	60	8	8	8	6	8	13	14	15	13	8	6	8	116
	Miami	59	7	6	6	6	10	15	16	18	17	14	8	7	131
GA	Atlanta	67	12	10	11	9	9	10	12	9	8	6	8	10	115
HI	Honolulu	52	9	9	9	9	7	6	7	6	7	8	9	10	97
ID	Boise	62	12	10	10	8	8	6	2	2	4	6	10	11	90
IL	Chicago	43	11	9	12	13	11	10	10	9	9	9	11	11	125
	Peoria	62	9	8	11	12	12	10	9	8	9	8	9	10	114
IN	Indianapolis	62	12	10	13	12	12	10	10	9	8	8	10	12	126
IA	Des Moines	62	7	7	10	11	12	11	9	9	9	8	7	8	108
KS	Wichita	48	5	5	8	8	11	9	8	7	8	6	5	6	86
KY	Louisville	54	11	10	13	12	12	10	10	8	8	7	10	11	124
LA	New Orleans	53	10	9	9	7	8	11	14	13	10	6	7	10	114
ME	Portland	61	11	10	11	12	12	11	10	9	9	9	11	11	129
MD	Baltimore	51	10	9	11	11	11	10	9	9	8	7	9	9	114
MA	Boston	50	12	10	12	11	12	10	9	10	9	9	11	11	126
MI	Detroit	43	13	11	13	13	11	10	10	10	10	10	12	14	135
	Sault Ste. Marie	60	19	14	13	11	11	11	11	10	11	13	14	17	165
MN	Duluth	60	12	10	11	11	12	13	12	11	13	10	11	11	134
	Minneapolis-St. Paul	63	9	7	10	10	11	12	10	10	9	8	9	9	116
MS	Jackson	38	11	9	10	8	9	9	11	10	8	6	9	10	109
MO	Kansas City	29	7	7	10	11	12	10	9	9	8	7	8	7	105
	St. Louis	44	9	8	11	11	11	10	9	8	8	8	9	9	111
MT	Great Falls	64	9	8	9	9	11	12	8	8	7	6	7	7	100
NE	Omaha	65	6	7	8	10	12	11	9	9	8	6	6	6	99
NV	Reno	59	6	6	6	4	4	3	2	2	3	3	5	6	51
NH	Concord	60	11	9	11	11	12	11	10	10	9	9	11	11	126
NJ	Atlantic City	58	11	10	11	11	10	9	9	9	8	7	9	10	113
NM	Albuquerque	62	4	4	5	3	4	4	9	10	6	5	4	4	61
NY	Albany	55	13	11	12	12	13	11	10	10	10	9	12	12	135
	Buffalo	58	20	17	16	14	13	11	10	10	11	12	16	19	168
	New York ²	132	11	10	11	11	11	10	11	10	8	8	9	10	121
NC	Charlotte	62	10	10	11	9	9	10	11	10	7	7	8	10	111
	Raleigh	57	10	10	10	9	10	10	11	10	8	7	8	9	113
ND	Bismarck	62	8	7	8	8	10	12	9	8	7	6	6	7	96
OH	Cincinnati	54	12	11	13	13	12	11	10	9	8	8	11	12	131
	Cleveland	60	16	14	15	14	13	11	10	10	10	11	14	16	155
	Columbus	62	13	12	13	13	13	11	11	9	8	9	11	13	137
OK	Oklahoma City	62	5	6	7	8	10	9	6	6	7	7	5	6	83
OR	Portland	61	18	16	17	15	12	9	4	5	7	12	18	19	153
PA	Philadelphia	61	11	9	11	11	11	10	9	9	8	8	9	10	117
	Pittsburgh	49	16	14	15	14	13	12	11	10	10	10	13	16	152
RI	Providence	48	11	10	12	11	11	11	9	10	9	10	10	12	124
SC	Columbia	54	10	9	10	8	9	10	12	11	8	6	7	9	109
SD	Sioux Falls	56	6	7	9	10	11	11	10	9	8	6	7	6	99
TN	Memphis	51	10	9	11	10	9	9	9	7	7	6	9	10	106
	Nashville	60	11	10	12	11	11	10	10	9	8	7	9	11	119
TX	Dallas-Fort Worth	48	7	7	8	8	9	7	5	5	7	6	6	7	79
	El Paso	62	4	3	2	2	2	3	8	8	5	4	3	4	49
	Houston	32	11	8	9	7	8	10	9	9	8	9	8	9	105
UT	Salt Lake City	73	10	9	10	10	8	5	4	6	5	6	8	9	91
VT	Burlington	58	14	12	13	12	14	12	13	12	12	14	15	15	154
VA	Norfolk	53	11	10	11	10	10	9	11	10	8	7	8	9	115
	Richmond	64	10	9	11	9	11	9	11	9	8	7	8	9	113
WA	Seattle-Tacoma	57	19	16	17	14	11	9	5	6	9	13	18	19	155
	Spokane	54	14	11	11	9	9	8	5	5	6	8	13	14	113
WV	Charleston	54	15	14	15	14	13	12	13	11	9	9	12	14	151
WI	Milwaukee	61	11	10	12	12	12	11	10	9	9	9	10	11	126
WY	Cheyenne	66	6	6	9	10	12	11	11	10	8	6	6	6	101
PR	San Juan	46	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. 394. 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	59	0.1	0.1	0.1	T	T	-	T	-	-	-	T	0.1	0.4
AK	Juneau	57	25.7	18.9	14.8	3.3	T	T	-	-	-	T	1.0	12.0	22.0
AZ	Phoenix	62	T	-	T	T	T	-	-	-	-	T	-	T	T
AR	Little Rock	56	2.4	1.5	0.5	T	T	T	-	-	-	-	-	-	T
CA	Los Angeles	62	T	T	T	-	-	-	-	-	-	-	-	-	T
	Sacramento	50	T	T	T	-	-	T	-	-	-	-	-	-	T
	San Diego	60	T	-	T	T	-	-	-	-	-	-	-	T	T
	San Francisco	69	-	T	T	-	-	-	-	-	-	-	-	-	T
CO	Denver	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	44	12.9	12.2	10.1	1.5	-	-	T	-	-	-	0.1	2.1	10.0
DE	Wilmington	51	6.8	6.1	3.2	0.2	T	T	T	T	-	-	0.1	0.9	3.2
DC	Washington	58	5.5	5.2	2.3	T	T	T	T	T	-	-	-	0.8	2.8
FL	Jacksonville	60	T	-	-	T	-	T	T	-	-	-	-	-	T
	Miami	59	-	-	-	-	-	T	-	-	-	-	-	-	T
GA	Atlanta	64	0.9	0.5	0.4	T	-	-	T	-	-	-	T	0.2	2
HI	Honolulu	52	-	-	-	-	-	-	-	-	-	-	-	-	-
ID	Boise	62	6.4	3.7	1.7	0.6	0.1	T	T	T	T	0.1	2.3	5.8	20.7
IL	Chicago	42	11.1	8.0	6.8	1.6	0.1	T	T	T	T	0.4	1.9	8.4	38.3
	Peoria	58	6.8	5.1	4.1	0.8	T	T	T	-	T	0.1	2	6.1	25.0
IN	Indianapolis	70	6.8	5.4	3.5	0.5	T	-	-	T	-	0.2	1.9	5.2	23.5
IA	Des Moines	58	8.3	7.2	6.0	1.8	-	T	-	T	-	0.3	3.1	6.6	33.3
KS	Wichita	48	4.3	4.0	2.8	0.2	T	T	T	T	T	-	1.3	3.1	15.7
KY	Louisville	54	5.4	4.4	3.2	0.1	T	T	T	T	-	0.1	1	2.3	16.5
LA	New Orleans	51	T	0.1	T	-	T	-	-	-	-	-	T	0.1	0.2
ME	Portland	61	19.4	16.8	13.5	2.9	0.2	-	-	-	T	0.2	3.3	14.5	70.8
MD	Baltimore	51	6.4	6.5	3.8	0.1	T	-	T	-	-	-	-	1	3.0
MA	Boston	64	12.9	11.7	8.2	0.9	-	-	-	-	T	-	1.3	7.5	42.5
MI	Detroit	43	10.5	9.1	6.9	1.7	T	-	-	-	T	0.2	2.7	9.9	41.0
	Sault Ste. Marie	57	29.2	18.2	14.6	5.8	0.5	T	T	T	0.1	2.4	15.6	31.0	117.4
MN	Duluth	58	17.8	11.9	13.5	6.7	0.7	T	T	T	0.1	1.5	13	15.4	80.6
	Minneapolis-St. Paul	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	38	0.5	0.2	0.2	T	-	-	-	T	-	-	-	T	0.1
MO	Kansas City	67	5.6	4.4	3.4	0.8	T	T	T	T	T	0.1	1.2	4.5	20.0
	St. Louis	65	5.4	4.4	3.9	0.5	-	T	T	-	T	-	1.4	3.9	19.5
MT	Great Falls	64	9.5	8.5	10.5	7.1	1.8	0.3	T	0.1	1.5	3.4	7.3	8.1	58.1
NE	Omaha	66	7.2	6.8	6.2	1.0	0.1	T	T	-	T	0.3	2.6	5.7	29.9
NV	Reno	54	5.8	5.2	4.3	1.2	0.8	-	-	-	-	0.3	2.4	4.3	24.3
NH	Concord	60	17.9	14.3	11.6	2.5	0.1	T	-	-	T	0.1	3.9	13.6	64.0
NJ	Atlantic City	52	4.9	5.4	2.5	0.3	T	T	T	-	-	T	0.4	2.2	15.7
NM	Albuquerque	62	2.5	2.1	1.8	0.6	T	T	T	T	T	0.1	1.2	2.7	11.0
NY	Albany	55	16.6	13.9	11.7	2.7	0.1	T	T	-	T	0.2	4.2	14.3	63.7
	Buffalo	58	24.2	17.7	12.4	3.2	0.2	T	T	T	T	0.3	11.4	24.1	93.5
	New York	133	7.5	8.5	5.1	0.9	T	-	T	-	-	-	0.9	5.5	28.4
NC	Charlotte	62	2.1	1.6	1.2	T	T	-	-	-	-	T	0.1	0.5	5.5
	Raleigh	57	2.7	2.5	1.3	T	T	T	-	-	-	-	0.1	0.8	7.4
ND	Bismarck	62	7.8	7.1	8.4	4.1	0.9	T	T	T	0.2	1.8	7.1	6.9	44.3
OH	Cincinnati	54	7.2	5.5	4.4	0.5	-	T	T	T	-	0.3	2.0	3.7	23.6
	Cleveland	60	13.6	11.9	10.8	2.4	0.1	T	T	-	T	0.6	5.3	11.9	56.6
	Columbus	54	8.9	6.0	4.5	0.9	T	T	T	-	T	0.1	2.2	5.4	28.0
OK	Oklahoma City	62	3.2	2.4	1.5	T	T	T	T	T	-	T	0.5	1.9	9.5
OR	Portland	55	3.2	1.1	0.4	T	-	T	-	T	T	-	0.4	1.4	6.5
PA	Philadelphia	59	6.1	6.6	3.5	0.3	T	T	-	-	-	-	0.7	3.2	20.4
	Pittsburgh	49	11.8	9.0	8.6	1.7	0.1	T	T	T	T	0.4	3.5	8.0	43.1
RI	Providence	48	9.7	9.8	7.4	0.7	0.2	-	-	-	-	0.1	1.1	6.7	35.7
SC	Columbia	54	0.5	0.8	0.2	T	-	-	-	-	-	-	T	0.3	1.8
SD	Sioux Falls	56	7.0	8.1	9.2	2.9	T	T	T	T	T	0.8	6.2	7.1	41.3
TN	Memphis	49	2.2	1.4	0.8	T	T	T	-	-	-	T	0.1	0.6	5.1
	Nashville	57	3.7	3.0	1.5	-	-	T	-	T	-	-	0.4	1.4	10.0
TX	Dallas-Fort Worth	43	1.1	0.9	0.2	T	T	-	-	-	-	T	0.1	0.2	2.5
	El Paso	57	1.3	0.8	0.4	0.3	T	T	T	-	T	-	0.9	1.6	5.3
	Houston	67	0.2	0.2	T	T	T	-	-	-	-	-	T	T	0.4
UT	Salt Lake City	73	13.6	9.9	9.2	5	0.6	T	T	T	0.1	1.3	7.1	11.9	58.7
VT	Burlington	58	19.3	16.6	13.9	4.3	0.2	-	T	T	-	0.2	6.6	17.9	79.0
VA	Norfolk	51	2.9	3.0	1.0	-	T	-	T	-	-	-	-	0.9	7.8
	Richmond	62	4.9	3.9	2.4	0.1	T	-	-	-	-	T	0.4	2.0	13.7
WA	Seattle-Tacoma	52	4.9	1.6	1.3	0.1	T	-	-	-	T	-	1.1	2.4	11.4
	Spokane	54	15.5	7.6	3.8	0.6	0.1	T	-	-	T	0.4	6.4	14.6	49.0
WV	Charleston	49	11.1	8.7	5.4	0.9	-	T	T	T	T	0.2	2.4	5.3	34.0
WI	Milwaukee	61	13.9	9.4	8.2	1.9	0.1	T	T	T	T	0.2	3.0	10.7	47.4
WY	Cheyenne	66	6.5	6.3	11.8	9.4	3.4	0.2	T	T	1.1	3.7	7.1	6.2	55.7
PR	San Juan	46	-	-	-	-	-	-	-	-	-	-	-	-	-

- Represents zero or rounds to zero. ¹ City office data.

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

No. 395. 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 2000, except heating and cooling normals for period 1971-2000. M=morning, A=afternoon]

State	Station	Average percentage of possible sunshine		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	52	8.8	10.1	6.9	1,667	2,548	38	87	61	82	64	90	64
AK	Juneau	47	23	55	8.2	8.0	7.5	8,574	-	34	80	69	77	74	78	66
AZ	Phoenix	57	81	55	6.2	5.3	7.1	1,040	4,355	40	50	23	65	32	43	20
AR	Little Rock	35	60	58	7.8	8.4	6.7	3,084	2,086	36	83	58	80	63	86	57
CA	Los Angeles	60	72	52	7.5	6.7	7.9	1,286	682	41	79	65	71	61	86	68
	Sacramento	49	73	50	7.8	7.2	8.9	2,666	1,248	14	83	46	91	71	77	29
	San Diego	55	72	60	7.0	6.0	7.5	1,063	866	40	77	63	72	58	82	67
	San Francisco	68	71	73	10.6	7.2	13.6	2,862	142	41	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	88	34
CT	Hartford	41	52	46	8.4	9.0	7.3	6,104	759	41	77	52	72	56	79	54
DE	Wilmington	47	55	52	9.0	9.8	7.8	4,887	1,125	53	78	55	75	60	79	51
DC	Washington	48	55	52	9.4	10.0	8.3	3,999	1,560	40	75	54	70	56	76	53
FL	Jacksonville	47	61	51	7.9	8.1	7.0	1,353	2,636	64	89	56	87	58	89	69
	Miami	46	68	51	9.2	9.5	7.9	155	4,383	36	83	61	84	60	83	63
GA	Atlanta	61	59	62	9.1	10.4	7.7	2,827	1,810	40	82	56	79	60	88	59
HI	Honolulu	47	74	51	11.3	9.4	13.1	-	4,561	31	72	56	81	61	68	52
ID	Boise	56	58	61	8.7	8.0	8.4	5,809	769	61	69	43	80	70	54	22
IL	Chicago	37	52	42	10.4	11.7	8.4	6,493	835	42	80	62	78	69	82	59
	Peoria	52	53	57	9.9	11.0	7.8	6,095	998	41	83	64	80	71	87	62
IN	Indianapolis	64	51	52	9.6	10.9	7.5	5,521	1,042	41	84	62	81	71	87	60
IA	Des Moines	46	55	51	10.7	11.4	8.9	6,432	1,052	39	80	62	77	69	83	60
KS	Wichita	39	62	47	12.2	12.0	11.3	4,765	1,658	47	80	57	79	64	79	52
KY	Louisville	47	53	53	8.3	9.5	6.8	4,352	1,443	40	81	59	77	65	85	58
LA	New Orleans	47	60	52	8.2	9.3	6.1	1,417	2,776	52	87	65	85	68	91	67
ME	Portland	54	55	60	8.7	9.1	7.6	7,325	347	60	79	59	76	61	80	59
MD	Baltimore	45	58	50	8.9	9.6	7.6	4,634	1,220	47	77	54	73	57	80	53
MA	Boston	60	55	43	12.4	13.8	11.0	5,630	777	36	73	58	68	58	74	57
MI	Detroit	37	43	42	10.3	12.0	8.5	6,449	727	42	81	60	80	70	82	54
MN	Sault Ste. Marie	54	43	59	9.2	9.6	7.8	9,230	145	59	85	66	81	74	89	64
	Duluth	47	49	51	11.0	11.8	9.4	9,742	189	39	81	65	77	71	85	62
	Minneapolis-St. Paul	57	54	62	10.5	10.5	9.4	7,882	699	41	79	62	75	68	81	58
MS	Jackson	30	59	37	7.0	8.3	5.4	2,368	2,920	37	90	61	86	67	93	62
MO	Kansas City	23	59	28	10.6	11.2	9.2	5,249	1,325	28	81	63	77	66	85	62
	St. Louis	47	55	51	9.7	10.6	8.0	4,757	1,561	40	82	61	81	68	84	59
MT	Great Falls	57	51	59	12.6	14.9	10.0	7,675	326	39	68	46	67	61	68	31
NE	Omaha	49	59	64	10.5	10.9	8.8	6,312	1,095	36	81	62	79	67	85	62
NV	Reno	53	69	58	6.6	5.6	7.2	5,601	493	37	69	31	79	50	60	18
NH	Concord	54	55	58	6.7	7.3	5.7	7,485	442	35	81	53	76	59	84	51
NJ	Atlantic City	37	56	42	9.8	10.9	8.3	5,113	935	36	82	56	78	59	83	57
NM	Albuquerque	56	76	61	8.9	8.0	8.9	4,281	1,290	40	59	29	68	39	59	27
NY	Albany	57	49	62	8.9	9.8	7.5	6,861	544	35	80	58	78	64	81	55
	Buffalo	52	43	61	11.8	14.0	10.2	6,693	548	40	80	63	79	73	79	55
	New York ²	42	64	63	9.3	10.7	7.6	4,744	1,160	66	72	56	68	60	75	55
NC	Charlotte	49	59	51	7.4	7.8	6.6	3,208	1,644	40	82	53	78	56	86	56
	Raleigh	47	59	51	7.6	8.4	6.7	3,465	1,521	36	85	54	79	55	89	58
ND	Bismarck	56	55	61	10.2	10.0	9.2	8,809	471	41	81	59	76	70	84	51
OH	Cincinnati	44	49	53	9.0	10.5	7.2	5,200	1,053	38	82	60	80	69	86	58
	Cleveland	54	45	59	10.5	12.2	8.6	6,097	712	40	80	62	79	70	82	57
	Columbus	46	48	51	8.3	9.8	6.5	5,546	925	41	81	59	78	68	84	56
OK	Oklahoma City	44	64	52	12.3	12.6	10.9	3,663	1,907	35	80	57	78	61	80	53
OR	Portland	47	39	52	7.9	9.9	7.6	4,366	398	60	85	59	85	75	82	45
PA	Philadelphia	55	56	60	9.5	10.3	8.2	4,759	1,235	41	76	55	73	59	79	54
	Pittsburgh	43	44	48	9.0	10.5	7.3	5,829	726	40	79	57	77	66	83	54
RI	Providence	42	55	47	10.4	11.1	9.4	5,754	714	37	75	55	71	57	77	56
SC	Columbia	48	60	52	6.8	7.2	6.3	2,595	2,063	34	87	51	83	55	88	54
SD	Sioux Falls	50	57	52	11.0	10.9	9.8	7,746	757	37	82	63	78	71	84	58
TN	Memphis	43	59	52	8.8	10.0	7.5	3,033	2,190	61	81	58	78	64	84	59
	Nashville	54	57	59	8.0	9.1	6.5	3,658	1,656	35	83	60	79	65	88	60
TX	Dallas-Fort Worth	42	64	47	10.7	11.0	9.8	2,370	2,571	37	81	58	80	62	80	52
	El Paso	53	80	58	8.8	8.3	8.3	2,604	2,165	40	56	28	65	34	61	29
	Houston	26	56	31	7.7	8.2	6.8	1,525	2,893	31	90	63	85	67	92	61
UT	Salt Lake City	69	62	71	8.8	7.5	9.5	5,607	1,089	41	67	43	79	69	52	22
VT	Burlington	52	44	57	9.0	9.8	8.0	7,665	489	35	77	59	73	64	79	53
VA	Norfolk	47	58	52	10.5	11.5	8.9	3,342	1,630	52	78	57	75	59	82	59
	Richmond	50	56	52	7.7	8.1	6.9	3,878	1,466	66	83	53	80	57	85	56
WA	Seattle-Tacoma ³	51	38	52	8.9	9.6	8.2	4,797	173	41	83	62	82	74	82	49
	Spokane	48	48	53	8.9	8.8	8.6	6,820	394	41	78	52	86	79	65	28
WV	Charleston	47	48	53	5.9	7.1	4.8	4,589	1,064	53	83	56	78	63	90	60
WI	Milwaukee	55	52	60	11.5	12.6	9.7	7,096	616	40	80	65	76	70	82	63
WY	Cheyenne	60	64	43	12.9	15.3	10.4	7,289	280	41	66	45	58	51	70	38
PR	San Juan	40	76	45	8.4	8.4	9.7	-	5,426	45	79	65	82	64	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.