

Air Quality Data Update 2000-2002 Ozone Air Quality Data

The following is a brief summary of EPA's 2002 air quality update for ozone air quality monitoring data for the three year period, 2000-2002. During this current three year period,

- 32 of the original 98 areas designated nonattainment for the 1-hour O₃ National Ambient Air Quality Standard (NAAQS) in 1991 failed to meet the NAAQS in 2000-2002 (Table 1).
- 3 of the 32 areas have an average expected exceedances greater than 1 but require further review before determining the applicability of the estimate (See Note 4 for Table 1).
- 1 additional county failed to meet the 1-hour O₃ NAAQS in 2000-2002 (See Note 5 for Table 1).
- 297 counties have average annual 4th maximum 8-hour daily maximum O₃ concentrations in 2000-2002 greater than the level of the 8-hour O₃ NAAQS (Table 2).
- 309 counties have average annual 4th maximum 8-hour daily maximum O₃ concentrations in 2000-2002 less than or equal to the level of the 8-hour O₃ NAAQS (Table 3).

The EPA set the 1-hour O₃ standard at 0.12 parts per million (ppm) daily maximum 1-hour average concentration not to be exceeded more than once per year on average. Compliance with the 1-hour ozone standard is judged on the basis of the most recent three years of ambient air quality monitoring data. The 1-hour ozone standard is not met at a monitoring site if the average number of estimated exceedances of the ozone standard is greater than 1.0 (1.05 rounds up). The level of the 8-hour O₃ NAAQS is 0.08 ppm. The 8-hour O₃ standard is not met if the 3-year average of the annual 4th highest daily maximum 8-hour O₃ concentration is greater than 0.08 ppm (0.085 rounds up).

Air quality data from EPA's Air Quality System (AQS) was used to calculate expected exceedances and design values. The specific calculation is explained in the notes for each table. The data used for these calculation was obtained from AQS on August 11, 2003. No regulatory decisions on attainment status have been made for areas based upon these specific calculations. In some cases the data are still under review. In addition, for regulatory decisions, data not in AQS may be informative. Accordingly, further analysis will occur before these design values are used in implementing the national ambient air quality standards for ozone. For information concerning these data contact:

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**Table 1. Areas Designated Nonattainment in 1991⁽¹⁾ that fail to meet the
1-hour Ozone NAAQS in 2000-2002**

State	Designated Area	O3 Design Value (ppm)²	Average Estimated Exceedance Rate³
ALABAMA	Birmingham, AL	0.127	1.4
CALIFORNIA	Los Angeles South Coast Air Basin, CA	0.169	12.1
CALIFORNIA	Sacramento Metro, CA	0.148	6.0
CALIFORNIA	San Francisco Bay Area, CA	0.126	2.2
CALIFORNIA	San Joaquin Valley, CA	0.151	16.9
CALIFORNIA	Southeast Desert Modified AQMA, CA	0.146	11.4
CALIFORNIA	Imperial Co, CA	0.147	4.2
CONNECTICUT	Greater Connecticut, CT	0.146	3.7
CONNECTICUT	New York-N. New Jersey-Long Island,NY-NJ-CT	0.149	3.0
GEORGIA	Athens, GA ⁴	0.110	1.1
GEORGIA	Atlanta, GA	0.144	2.3
GEORGIA	Macon, GA	0.125	1.3
LOUISIANA	Baton Rouge, LA	0.135	1.3
MAINE	Portland, ME	0.126	2.1
MARYLAND	Baltimore, MD	0.143	3.7
MARYLAND	Kent & Queen Anne's Cos, MD	0.128	1.3
MASSACHUSETTS	Boston-Lawrence-Worcester (E. MA), MA-NH	0.130	1.3
MASSACHUSETTS	Springfield (Western MA), MA	0.132	1.3
NEW HAMPSHIRE	Manchester, NH	0.123	1.3
NEW HAMPSHIRE	Portsmouth-Dover-Rochester, NH ⁴	0.111	1.1
NEW YORK	Poughkeepsie, NY	0.126	1.3
NORTH CAROLINA	Charlotte-Gastonia, NC	0.130	1.7
OHIO	Cleveland-Akron-Lorain, OH	0.128	1.7
PENNSYLVANIA	Philadelphia-Wilmington-Trenton,PA-NJ-DE-MD	0.135	2.4
RHODE ISLAND	Providence (All RI), RI	0.130	1.8
TENNESSEE	Knoxville, TN ⁴	0.116	1.2
TEXAS	Dallas-Fort Worth, TX	0.135	1.7
TEXAS	Houston-Galveston-Brazoria, TX	0.175	5.4
VIRGINIA	Richmond-Petersburg, VA	0.124	1.1
VIRGINIA	Washington, DC-MD-VA	0.131	1.3
WISCONSIN	Chicago-Gary-Lake County, IL-IN	0.134	1.7
WISCONSIN	Milwaukee-Racine, WI	0.125	1.3

Notes for Table 1:

1. Designations and classifications for ozone nonattainment areas as published in the Federal Register, 40 CFR Part 81. Unclassified and transitional nonattainment areas are not included in Table 1.
2. The updated air quality design value is estimated for the 2000-2002 period using all air quality data reported to EPA's Air Quality System (AQS). The computation procedures follow EPA guidance for calculating design values (Laxton Memorandum, June 18, 1990). For sites with three complete years of monitoring data, the air quality design value is the fourth highest daily maximum 1-hour ozone concentration, because the standard allows one exceedance per year on average. It is important to note that the 1990 Clean Air Act Amendments required that nonattainment areas be classified on the basis of the design value at the time the Amendments were passed, generally the 1987-89 period was used.
3. The level of the 1-hour ozone Ambient Air Quality standard is 0.12 parts per million (ppm) daily maximum 1-hour average concentration not to be exceeded more than once per year on average. The average estimated number of exceedances column shows the number of days the 0.12 ppm 1-hour ozone standard was exceeded on average at the site recording the highest updated air quality value. This computation is performed after adjustment for any missing sampling days during the 3-year period, 1999-2001. The values in parentheses are associated with the monitor with highest average estimated number of exceedances within the designated area; sometimes this statistic is associated with a different site than the site recording the highest updated air quality value.
4. These areas have an average expected exceedances for 2000-2002 greater than 1 but a design value that is less than 0.125 ppm. Further review will be required before determining the applicability of the estimated design value due to less than 3 valid years of data.
5. La Porte County in Indiana had a design value of 0.135 ppm with an average expected exceedance rate of 2 and clearly violates the ozone 1-hour standard in the period 2000-2002.

Table 2. Counties Failing to Meet the 8-hour Ozone NAAQS, 2000-2002

State	County	State FIPS Code	County FIPS Code	Design Value ¹
ALABAMA	JEFFERSON	1	73	0.088
ALABAMA	MORGAN	1	103	0.085
ALABAMA	SHELBY	1	117	0.092
ARIZONA	MARICOPA	4	13	0.085
ARKANSAS	CRITTENDEN	5	35	0.094
ARKANSAS	PULASKI	5	119	0.086
CALIFORNIA	AMADOR	6	5	0.088
CALIFORNIA	BUTTE	6	7	0.089
CALIFORNIA	CALAVERAS	6	9	0.092
CALIFORNIA	EL DORADO	6	17	0.106
CALIFORNIA	FRESNO	6	19	0.115
CALIFORNIA	IMPERIAL	6	25	0.087
CALIFORNIA	KERN	6	29	0.112
CALIFORNIA	KINGS	6	31	0.099
CALIFORNIA	LOS ANGELES	6	37	0.113
CALIFORNIA	MADERA	6	39	0.091
CALIFORNIA	MARIPOSA	6	43	0.089
CALIFORNIA	MERCED	6	47	0.101
CALIFORNIA	NEVADA	6	57	0.098
CALIFORNIA	PLACER	6	61	0.101
CALIFORNIA	RIVERSIDE	6	65	0.113
CALIFORNIA	SACRAMENTO	6	67	0.1
CALIFORNIA	SAN BERNARDINO	6	71	0.128
CALIFORNIA	SAN DIEGO	6	73	0.095
CALIFORNIA	STANISLAUS	6	99	0.095
CALIFORNIA	TULARE	6	107	0.105
CALIFORNIA	TUOLUMNE	6	109	0.091
CALIFORNIA	VENTURA	6	111	0.097
CONNECTICUT	FAIRFIELD	9	1	0.098
CONNECTICUT	HARTFORD	9	3	0.09
CONNECTICUT	MIDDLESEX	9	7	0.097
CONNECTICUT	NEW HAVEN	9	9	0.098
CONNECTICUT	NEW LONDON	9	11	0.089
CONNECTICUT	TOLLAND	9	13	0.094
DELAWARE	KENT	10	1	0.092
DELAWARE	NEW CASTLE	10	3	0.096
DELAWARE	SUSSEX	10	5	0.094
DISTRICT OF COLUMBIA	WASHINGTON	11	1	0.095
GEORGIA	BIBB	13	21	0.092
GEORGIA	COBB	13	67	0.098

State	County	State FIPS Code	County FIPS Code	Design Value ¹
GEORGIA	COWETA	13	77	0.093
GEORGIA	DE KALB	13	89	0.095
GEORGIA	DOUGLAS	13	97	0.095
GEORGIA	FAYETTE	13	113	0.09
GEORGIA	FULTON	13	121	0.099
GEORGIA	GWINNETT	13	135	0.089
GEORGIA	HENRY	13	151	0.098
GEORGIA	MURRAY	13	213	0.087
GEORGIA	PAULDING	13	223	0.09
GEORGIA	RICHMOND	13	245	0.087
GEORGIA	ROCKDALE	13	247	0.096
ILLINOIS	COOK	17	31	0.088
ILLINOIS	JERSEY	17	83	0.089
ILLINOIS	ST CLAIR	17	163	0.085
INDIANA	ALLEN	18	3	0.088
INDIANA	BOONE	18	11	0.088
INDIANA	CLARK	18	19	0.09
INDIANA	GREENE	18	55	0.089
INDIANA	HAMILTON	18	57	0.093
INDIANA	HANCOCK	18	59	0.092
INDIANA	HENDRICKS	18	63	0.088
INDIANA	HUNTINGTON	18	69	0.086
INDIANA	JACKSON	18	71	0.085
INDIANA	JOHNSON	18	81	0.087
INDIANA	LA PORTE	18	91	0.092
INDIANA	LAKE	18	89	0.092
INDIANA	MADISON	18	95	0.091
INDIANA	MARION	18	97	0.09
INDIANA	MORGAN	18	109	0.088
INDIANA	PORTER	18	127	0.09
INDIANA	POSEY	18	129	0.087
INDIANA	SHELBY	18	145	0.093
INDIANA	ST JOSEPH	18	141	0.09
KENTUCKY	BELL	21	13	0.086
KENTUCKY	BOONE	21	15	0.086
KENTUCKY	BOYD	21	19	0.088
KENTUCKY	BULLITT	21	29	0.085
KENTUCKY	CAMPBELL	21	37	0.094
KENTUCKY	CHRISTIAN	21	47	0.085
KENTUCKY	JEFFERSON	21	111	0.085

State	County	State FIPS Code	County FIPS Code	Design Value ¹
KENTUCKY	KENTON	21	117	0.088
KENTUCKY	OLDHAM	21	185	0.087
KENTUCKY	WARREN	21	227	0.086
LOUISIANA	EAST BATON ROUGE	22	33	0.086
LOUISIANA	IBERVILLE	22	47	0.086
LOUISIANA	JEFFERSON	22	51	0.085
LOUISIANA	WEST BATON ROUGE	22	121	0.085
MAINE	CUMBERLAND	23	5	0.086
MAINE	HANCOCK	23	9	0.093
MAINE	YORK	23	31	0.09
MARYLAND	ANNE ARUNDEL	24	3	0.102
MARYLAND	BALTIMORE	24	5	0.093
MARYLAND	CARROLL	24	13	0.092
MARYLAND	CECIL	24	15	0.104
MARYLAND	CHARLES	24	17	0.094
MARYLAND	FREDERICK	24	21	0.091
MARYLAND	HARFORD	24	25	0.104
MARYLAND	KENT	24	29	0.102
MARYLAND	MONTGOMERY	24	31	0.089
MARYLAND	PRINCE GEORGES	24	33	0.095
MARYLAND	WASHINGTON	24	43	0.087
MASSACHUSETTS	BARNSTABLE	25	1	0.093
MASSACHUSETTS	BRISTOL	25	5	0.09
MASSACHUSETTS	ESSEX	25	9	0.09
MASSACHUSETTS	HAMPDEN	25	13	0.092
MASSACHUSETTS	HAMPSHIRE	25	15	0.088
MASSACHUSETTS	MIDDLESEX	25	17	0.089
MASSACHUSETTS	SUFFOLK	25	25	0.089
MASSACHUSETTS	WORCESTER	25	27	0.085
MICHIGAN	ALLEGAN	26	5	0.092
MICHIGAN	BENZIE	26	19	0.086
MICHIGAN	BERRIEN	26	21	0.087
MICHIGAN	CASS	26	27	0.09
MICHIGAN	LENAWEE	26	91	0.085
MICHIGAN	MACOMB	26	99	0.088
MICHIGAN	MASON	26	105	0.087
MICHIGAN	MUSKEGON	26	121	0.089
MICHIGAN	OAKLAND	26	125	0.086
MICHIGAN	OTTAWA	26	139	0.085

State	County	State FIPS Code	County FIPS Code	Design Value ¹
MICHIGAN	ST CLAIR	26	147	0.088
MICHIGAN	WASHTENAW	26	161	0.087
MICHIGAN	WAYNE	26	163	0.085
MISSISSIPPI	DE SOTO	28	33	0.086
MISSOURI	CLAY	29	47	0.085
MISSOURI	JEFFERSON	29	99	0.086
MISSOURI	ST CHARLES	29	183	0.09
MISSOURI	ST LOUIS	29	189	0.089
MISSOURI	ST LOUIS (CITY)	29	510	0.088
NEW HAMPSHIRE	HILLSBOROUGH	33	11	0.085
NEW JERSEY	ATLANTIC	34	1	0.091
NEW JERSEY	BERGEN	34	3	0.091
NEW JERSEY	CAMDEN	34	7	0.103
NEW JERSEY	CUMBERLAND	34	11	0.098
NEW JERSEY	GLOUCESTER	34	15	0.104
NEW JERSEY	HUDSON	34	17	0.087
NEW JERSEY	HUNTERDON	34	19	0.096
NEW JERSEY	MERCER	34	21	0.104
NEW JERSEY	MIDDLESEX	34	23	0.101
NEW JERSEY	MONMOUTH	34	25	0.097
NEW JERSEY	MORRIS	34	27	0.098
NEW JERSEY	OCEAN	34	29	0.115
NEW JERSEY	PASSAIC	34	31	0.088
NEW YORK	CHAUTAUQUA	36	13	0.092
NEW YORK	DUTCHESS	36	27	0.093
NEW YORK	ERIE	36	29	0.097
NEW YORK	ESSEX	36	31	0.086
NEW YORK	JEFFERSON	36	45	0.091
NEW YORK	MONROE	36	55	0.085
NEW YORK	NIAGARA	36	63	0.091
NEW YORK	PUTNAM	36	79	0.092
NEW YORK	RICHMOND	36	85	0.096
NEW YORK	SUFFOLK	36	103	0.097
NEW YORK	WESTCHESTER	36	119	0.09
NORTH CAROLINA	ALEXANDER	37	3	0.091
NORTH CAROLINA	BUNCOMBE	37	21	0.085
NORTH CAROLINA	CALDWELL	37	27	0.086
NORTH CAROLINA	CASWELL	37	33	0.091
NORTH CAROLINA	CUMBERLAND	37	51	0.087
NORTH CAROLINA	DAVIE	37	59	0.095

State	County	State FIPS Code	County FIPS Code	Design Value ¹
NORTH CAROLINA	DURHAM	37	63	0.091
NORTH CAROLINA	EDGECOMBE	37	65	0.088
NORTH CAROLINA	FORSYTH	37	67	0.094
NORTH CAROLINA	FRANKLIN	37	69	0.091
NORTH CAROLINA	GRANVILLE	37	77	0.094
NORTH CAROLINA	GUILFORD	37	81	0.093
NORTH CAROLINA	HAYWOOD	37	87	0.087
NORTH CAROLINA	JACKSON	37	99	0.086
NORTH CAROLINA	JOHNSTON	37	101	0.085
NORTH CAROLINA	LINCOLN	37	109	0.094
NORTH CAROLINA	MECKLENBURG	37	119	0.102
NORTH CAROLINA	PERSON	37	145	0.09
NORTH CAROLINA	ROCKINGHAM	37	157	0.09
NORTH CAROLINA	ROWAN	37	159	0.101
NORTH CAROLINA	UNION	37	179	0.088
NORTH CAROLINA	WAKE	37	183	0.094
NORTH CAROLINA	YANCEY	37	199	0.087
OHIO	ALLEN	39	3	0.088
OHIO	ASHTABULA	39	7	0.094
OHIO	BUTLER	39	17	0.089
OHIO	CLARK	39	23	0.09
OHIO	CLERMONT	39	25	0.09
OHIO	CLINTON	39	27	0.096
OHIO	CUYAHOGA	39	35	0.086
OHIO	DELAWARE	39	41	0.089
OHIO	GEAUGA	39	55	0.099
OHIO	GREENE	39	57	0.086
OHIO	HAMILTON	39	61	0.089
OHIO	JEFFERSON	39	81	0.086
OHIO	KNOX	39	83	0.09
OHIO	LAKE	39	85	0.092
OHIO	LAWRENCE	39	87	0.086
OHIO	LICKING	39	89	0.09
OHIO	LORAIN	39	93	0.085
OHIO	LUCAS	39	95	0.089
OHIO	MADISON	39	97	0.089
OHIO	MAHONING	39	99	0.087
OHIO	MEDINA	39	103	0.087
OHIO	MIAMI	39	109	0.087
OHIO	MONTGOMERY	39	113	0.086

State	County	State FIPS Code	County FIPS Code	Design Value ¹
OHIO	PORTAGE	39	133	0.091
OHIO	STARK	39	151	0.089
OHIO	SUMMIT	39	153	0.095
OHIO	TRUMBULL	39	155	0.09
OHIO	WARREN	39	165	0.089
OHIO	WASHINGTON	39	167	0.087
OHIO	WOOD	39	173	0.086
OKLAHOMA	TULSA	40	143	0.085
PENNSYLVANIA	ALLEGHENY	42	3	0.095
PENNSYLVANIA	ARMSTRONG	42	5	0.091
PENNSYLVANIA	BEAVER	42	7	0.09
PENNSYLVANIA	BERKS	42	11	0.092
PENNSYLVANIA	BUCKS	42	17	0.104
PENNSYLVANIA	CAMBRIA	42	21	0.088
PENNSYLVANIA	CENTRE	42	27	0.085
PENNSYLVANIA	CHESTER	42	29	0.095
PENNSYLVANIA	CLEARFIELD	42	33	0.087
PENNSYLVANIA	DAUPHIN	42	43	0.091
PENNSYLVANIA	DELAWARE	42	45	0.095
PENNSYLVANIA	ERIE	42	49	0.088
PENNSYLVANIA	FRANKLIN	42	55	0.094
PENNSYLVANIA	GREENE	42	59	0.09
PENNSYLVANIA	LACKAWANNA	42	69	0.085
PENNSYLVANIA	LANCASTER	42	71	0.094
PENNSYLVANIA	LEHIGH	42	77	0.093
PENNSYLVANIA	MERCER	42	85	0.092
PENNSYLVANIA	MONTGOMERY	42	91	0.097
PENNSYLVANIA	NORTHAMPTON	42	95	0.092
PENNSYLVANIA	PHILADELPHIA	42	101	0.098
PENNSYLVANIA	WASHINGTON	42	125	0.088
PENNSYLVANIA	WESTMORELAND	42	129	0.086
PENNSYLVANIA	YORK	42	133	0.092
RHODE ISLAND	KENT	44	3	0.097
RHODE ISLAND	PROVIDENCE	44	7	0.091
RHODE ISLAND	WASHINGTON	44	9	0.093
SOUTH CAROLINA	ABBEVILLE	45	1	0.085
SOUTH CAROLINA	AIKEN	45	3	0.088
SOUTH CAROLINA	ANDERSON	45	7	0.088
SOUTH CAROLINA	CHEROKEE	45	21	0.087
SOUTH CAROLINA	DARLINGTON	45	31	0.086

State	County	State FIPS Code	County FIPS Code	Design Value ¹
SOUTH CAROLINA	PICKENS	45	77	0.085
SOUTH CAROLINA	RICHLAND	45	79	0.093
SOUTH CAROLINA	SPARTANBURG	45	83	0.09
TENNESSEE	ANDERSON	47	1	0.092
TENNESSEE	BLOUNT	47	9	0.094
TENNESSEE	HAMILTON	47	65	0.093
TENNESSEE	HAYWOOD	47	75	0.086
TENNESSEE	JEFFERSON	47	89	0.095
TENNESSEE	KNOX	47	93	0.096
TENNESSEE	MEIGS	47	121	0.093
TENNESSEE	PUTNAM	47	141	0.086
TENNESSEE	SEVIER	47	155	0.098
TENNESSEE	SHELBY	47	157	0.09
TENNESSEE	SULLIVAN	47	163	0.092
TENNESSEE	SUMNER	47	165	0.088
TENNESSEE	WILLIAMSON	47	187	0.087
TENNESSEE	WILSON	47	189	0.085
TEXAS	BEXAR	48	29	0.086
TEXAS	BRAZORIA	48	39	0.086
TEXAS	COLLIN	48	85	0.093
TEXAS	DALLAS	48	113	0.091
TEXAS	DENTON	48	121	0.099
TEXAS	ELLIS	48	139	0.086
TEXAS	GALVESTON	48	167	0.089
TEXAS	GREGG	48	183	0.088
TEXAS	HARRIS	48	201	0.107
TEXAS	JOHNSON	48	251	0.089
TEXAS	MONTGOMERY	48	339	0.091
TEXAS	PARKER	48	367	0.086
TEXAS	TARRANT	48	439	0.098
TEXAS	TRAVIS	48	453	0.085
VIRGINIA	ALEXANDRIA	51	510	0.09
VIRGINIA	ARLINGTON	51	13	0.096
VIRGINIA	CHARLES CITY	51	36	0.09
VIRGINIA	CHESTERFIELD	51	41	0.086
VIRGINIA	FAIRFAX	51	59	0.097
VIRGINIA	FREDERICK	51	69	0.085
VIRGINIA	HAMPTON	51	650	0.089
VIRGINIA	HENRICO	51	87	0.09
VIRGINIA	LOUDOUN	51	107	0.09

State	County	State FIPS Code	County FIPS Code	Design Value ¹
VIRGINIA	MADISON	51	113	0.085
VIRGINIA	PRINCE WILLIAM	51	153	0.085
VIRGINIA	ROANOKE	51	161	0.087
VIRGINIA	STAFFORD	51	179	0.086
VIRGINIA	SUFFOLK	51	800	0.088
WEST VIRGINIA	CABELL	54	11	0.088
WEST VIRGINIA	HANCOCK	54	29	0.085
WEST VIRGINIA	KANAWHA	54	39	0.085
WEST VIRGINIA	OHIO	54	69	0.085
WEST VIRGINIA	WOOD	54	107	0.088
WISCONSIN	DOOR	55	29	0.091
WISCONSIN	KENOSHA	55	59	0.1
WISCONSIN	KEWAUNEE	55	61	0.088
WISCONSIN	MANITOWOC	55	71	0.088
WISCONSIN	MILWAUKEE	55	79	0.091
WISCONSIN	OZAUKEE	55	89	0.093
WISCONSIN	RACINE	55	101	0.093
WISCONSIN	SHEBOYGAN	55	117	0.099

Notes:

1. The level of the 8-hour ozone (O₃) National Ambient Air Quality Standard (NAAQS) is 0.08 parts per million (ppm). The air quality design value for the 8-hour O₃ NAAQS is the 3-year average of the annual 4th highest daily maximum 8-hour average O₃ concentration. The 8-hour O₃ NAAQS is not met when the 8-hour ozone design value is greater than 0.08 ppm (85 ppb rounds up).
2. The design value for Tulsa County is 0.087 ppm if, as presented on the Oklahoma's Department of Environmental Quality website, flagged data is considered in the calculation. See: the Skiatook site listed in the table at <http://www.deq.state.ok.us/AQDNew/monitoring/charts/oz8h r-02.htm> .
3. Data reported on http://www.tnrcc.state.tx.us/cgi-bin/monops/8hr_4highest show Jefferson County, Texas with a design value for 2000-2003 as 90ppb.

Table 3. Counties Meeting the 8-hour Ozone NAAQS, 2000-2002

State	County	State FIPS Code	County FIPS Code	Design Value ¹
ALABAMA	BALDWIN	1	3	0.082
ALABAMA	CLAY	1	27	0.082
ALABAMA	ELMORE	1	51	0.08
ALABAMA	LAWRENCE	1	79	0.078
ALABAMA	MADISON	1	89	0.082
ALABAMA	MOBILE	1	97	0.081
ALABAMA	MONTGOMERY	1	101	0.081
ALABAMA	SUMTER	1	119	0.076
ALASKA	YUKON-KOYUKUK	2	290	0.051
ARIZONA	COCHISE	4	3	0.069
ARIZONA	COCONINO	4	5	0.073
ARIZONA	PIMA	4	19	0.073
ARIZONA	YAVAPAI	4	25	0.082
ARKANSAS	MONTGOMERY	5	97	0.069
ARKANSAS	NEWTON	5	101	0.078
CALIFORNIA	ALAMEDA	6	1	0.081
CALIFORNIA	COLUSA	6	11	0.076
CALIFORNIA	CONTRA COSTA	6	13	0.078
CALIFORNIA	GLENN	6	21	0.074
CALIFORNIA	INYO	6	27	0.081
CALIFORNIA	LAKE	6	33	0.064
CALIFORNIA	MARIN	6	41	0.047
CALIFORNIA	MENDOCINO	6	45	0.055
CALIFORNIA	MONTEREY	6	53	0.064
CALIFORNIA	NAPA	6	55	0.063
CALIFORNIA	ORANGE	6	59	0.075
CALIFORNIA	SAN BENITO	6	69	0.081
CALIFORNIA	SAN FRANCISCO	6	75	0.044
CALIFORNIA	SAN JOAQUIN	6	77	0.081
CALIFORNIA	SAN LUIS OBISPO	6	79	0.073
CALIFORNIA	SAN MATEO	6	81	0.052
CALIFORNIA	SANTA BARBARA	6	83	0.082
CALIFORNIA	SANTA CLARA	6	85	0.082
CALIFORNIA	SANTA CRUZ	6	87	0.064
CALIFORNIA	SHASTA	6	89	0.074
CALIFORNIA	SOLANO	6	95	0.072
CALIFORNIA	SONOMA	6	97	0.063
CALIFORNIA	SUTTER	6	101	0.084
CALIFORNIA	TEHAMA	6	103	0.083
CALIFORNIA	YOLO	6	113	0.083
COLORADO	ADAMS	8	1	0.064

State	County	State FIPS Code	County FIPS Code	Design Value ¹
COLORADO	ARAPAHOE	8	5	0.076
COLORADO	BOULDER	8	13	0.073
COLORADO	DENVER	8	31	0.072
COLORADO	DOUGLAS	8	35	0.08
COLORADO	EL PASO	8	41	0.07
COLORADO	JEFFERSON	8	59	0.083
COLORADO	LA PLATA	8	67	0.058
COLORADO	LARIMER	8	69	0.078
COLORADO	MONTEZUMA	8	83	0.069
COLORADO	WELD	8	123	0.066
FLORIDA	ALACHUA	12	1	0.075
FLORIDA	BAKER	12	3	0.072
FLORIDA	BAY	12	5	0.081
FLORIDA	BREVARD	12	9	0.076
FLORIDA	BROWARD	12	11	0.071
FLORIDA	DUVAL	12	31	0.069
FLORIDA	ESCAMBIA	12	33	0.084
FLORIDA	HILLSBOROUGH	12	57	0.079
FLORIDA	HOLMES	12	59	0.072
FLORIDA	LEE	12	71	0.069
FLORIDA	LEON	12	73	0.072
FLORIDA	MANATEE	12	81	0.076
FLORIDA	MARION	12	83	0.075
FLORIDA	Miami-Dade	12	86	0.069
FLORIDA	ORANGE	12	95	0.078
FLORIDA	OSCEOLA	12	97	0.073
FLORIDA	PALM BEACH	12	99	0.068
FLORIDA	PASCO	12	101	0.077
FLORIDA	PINELLAS	12	103	0.076
FLORIDA	POLK	12	105	0.077
FLORIDA	SANTA ROSA	12	113	0.084
FLORIDA	SARASOTA	12	115	0.081
FLORIDA	SEMINOLE	12	117	0.078
FLORIDA	ST LUCIE	12	111	0.068
FLORIDA	VOLUSIA	12	127	0.072
GEORGIA	CHATHAM	13	51	0.07
GEORGIA	CHEROKEE	13	57	0.078
GEORGIA	DAWSON	13	85	0.083
GEORGIA	GLYNN	13	127	0.073
GEORGIA	MUSCOGEE	13	215	0.083
GEORGIA	SUMTER	13	261	0.081

State	County	State FIPS Code	County FIPS Code	Design Value ¹
HAWAII	HONOLULU	15	3	0.043
ILLINOIS	ADAMS	17	1	0.077
ILLINOIS	CHAMPAIGN	17	19	0.076
ILLINOIS	DU PAGE	17	43	0.071
ILLINOIS	EFFINGHAM	17	49	0.077
ILLINOIS	HAMILTON	17	65	0.08
ILLINOIS	KANE	17	89	0.077
ILLINOIS	LAKE	17	97	0.084
ILLINOIS	MACON	17	115	0.077
ILLINOIS	MACOUPIN	17	117	0.08
ILLINOIS	MADISON	17	119	0.084
ILLINOIS	MC HENRY	17	111	0.083
ILLINOIS	PEORIA	17	143	0.079
ILLINOIS	RANDOLPH	17	157	0.079
ILLINOIS	SANGAMON	17	167	0.077
ILLINOIS	WILL	17	197	0.08
ILLINOIS	WINNEBAGO	17	201	0.075
INDIANA	FLOYD	18	43	0.083
INDIANA	GIBSON	18	51	0.071
INDIANA	VANDERBURGH	18	163	0.083
INDIANA	VIGO	18	167	0.079
INDIANA	WARRICK	18	173	0.084
IOWA	BREMER	19	17	0.072
IOWA	CLINTON	19	45	0.078
IOWA	HARRISON	19	85	0.077
IOWA	LINN	19	113	0.071
IOWA	PALO ALTO	19	147	0.066
IOWA	POLK	19	153	0.06
IOWA	SCOTT	19	163	0.079
IOWA	STORY	19	169	0.064
IOWA	VAN BUREN	19	177	0.074
IOWA	WARREN	19	181	0.063
KANSAS	LINN	20	107	0.076
KANSAS	SEDGWICK	20	173	0.081
KANSAS	SUMNER	20	191	0.08
KANSAS	TREGO	20	195	0.066
KANSAS	WYANDOTTE	20	209	0.081
KENTUCKY	CARTER	21	43	0.08
KENTUCKY	DAVISS	21	59	0.077
KENTUCKY	EDMONSON	21	61	0.084

State	County	State FIPS Code	County FIPS Code	Design Value ¹
KENTUCKY	FAYETTE	21	67	0.078
KENTUCKY	GRAVES	21	83	0.081
KENTUCKY	GREENUP	21	89	0.083
KENTUCKY	HANCOCK	21	91	0.083
KENTUCKY	HARDIN	21	93	0.081
KENTUCKY	HENDERSON	21	101	0.079
KENTUCKY	JESSAMINE	21	113	0.079
KENTUCKY	LIVINGSTON	21	139	0.084
KENTUCKY	MC CRACKEN	21	145	0.082
KENTUCKY	MC LEAN	21	149	0.084
KENTUCKY	PERRY	21	193	0.075
KENTUCKY	PIKE	21	195	0.078
KENTUCKY	PULASKI	21	199	0.081
KENTUCKY	SCOTT	21	209	0.07
KENTUCKY	SIMPSON	21	213	0.083
KENTUCKY	TRIGG	21	221	0.075
LOUISIANA	ASCENSION	22	5	0.082
LOUISIANA	BEAUREGARD	22	11	0.074
LOUISIANA	BOSSIER	22	15	0.084
LOUISIANA	CADDO	22	17	0.079
LOUISIANA	CALCASIEU	22	19	0.081
LOUISIANA	GRANT	22	43	0.078
LOUISIANA	LAFAYETTE	22	55	0.081
LOUISIANA	LAFOURCHE	22	57	0.08
LOUISIANA	LIVINGSTON	22	63	0.084
LOUISIANA	ORLEANS	22	71	0.071
LOUISIANA	OUACHITA	22	73	0.078
LOUISIANA	POINTE COUPEE	22	77	0.071
LOUISIANA	ST BERNARD	22	87	0.079
LOUISIANA	ST CHARLES	22	89	0.081
LOUISIANA	ST JAMES	22	93	0.076
LOUISIANA	ST JOHN THE BAPTIST PAR	22	95	0.081
LOUISIANA	ST MARY	22	101	0.077
MAINE	KENNEBEC	23	11	0.078
MAINE	KNOX	23	13	0.083
MAINE	OXFORD	23	17	0.06
MICHIGAN	CLINTON	26	37	0.082
MICHIGAN	GENESEE	26	49	0.084
MICHIGAN	HURON	26	63	0.082

State	County	State FIPS Code	County FIPS Code	Design Value ¹
MICHIGAN	INGHAM	26	65	0.082
MICHIGAN	KALAMAZOO	26	77	0.081
MICHIGAN	KENT	26	81	0.082
MICHIGAN	MISSAUKEE	26	113	0.078
MISSISSIPPI	ADAMS	28	1	0.08
MISSISSIPPI	BOLIVAR	28	11	0.077
MISSISSIPPI	HANCOCK	28	45	0.082
MISSISSIPPI	HARRISON	28	47	0.081
MISSISSIPPI	HINDS	28	49	0.076
MISSISSIPPI	JACKSON	28	59	0.082
MISSISSIPPI	LAUDERDALE	28	75	0.076
MISSISSIPPI	LEE	28	81	0.081
MISSISSIPPI	MADISON	28	89	0.076
MISSISSIPPI	WARREN	28	149	0.078
MISSOURI	CASS	29	37	0.079
MISSOURI	CEDAR	29	39	0.083
MISSOURI	GREENE	29	77	0.076
MISSOURI	MONROE	29	137	0.079
MISSOURI	PLATTE	29	165	0.084
MISSOURI	STE GENEVIEVE	29	186	0.084
MONTANA	FLATHEAD	30	29	0.052
NEBRASKA	DOUGLAS	31	55	0.068
NEBRASKA	LANCASTER	31	109	0.054
NEVADA	CLARK	32	3	0.082
NEVADA	DOUGLAS	32	5	0.072
NEVADA	WASHOE	32	31	0.073
NEVADA	WHITE PINE	32	33	0.072
NEW HAMPSHIRE	CARROLL	33	3	0.067
NEW HAMPSHIRE	CHESHIRE	33	5	0.073
NEW HAMPSHIRE	GRAFTON	33	9	0.068
NEW HAMPSHIRE	MERRIMACK	33	13	0.074
NEW HAMPSHIRE	ROCKINGHAM	33	15	0.083
NEW HAMPSHIRE	STRAFFORD	33	17	0.077
NEW HAMPSHIRE	SULLIVAN	33	19	0.073
NEW MEXICO	BERNALILLO	35	1	0.075
NEW MEXICO	DONA ANA	35	13	0.08
NEW MEXICO	EDDY	35	15	0.07
NEW MEXICO	SAN JUAN	35	45	0.076
NEW MEXICO	SANDOVAL	35	43	0.072
NEW MEXICO	VALENCIA	35	61	0.069

State	County	State FIPS Code	County FIPS Code	Design Value ¹
NEW YORK	ALBANY	36	1	0.083
NEW YORK	BRONX	36	5	0.081
NEW YORK	CHEMUNG	36	15	0.081
NEW YORK	HAMILTON	36	41	0.079
NEW YORK	HERKIMER	36	43	0.074
NEW YORK	MADISON	36	53	0.08
NEW YORK	ONEIDA	36	65	0.078
NEW YORK	ONONDAGA	36	67	0.083
NEW YORK	ORANGE	36	71	0.084
NEW YORK	QUEENS	36	81	0.074
NEW YORK	SCHENECTADY	36	93	0.076
NEW YORK	ULSTER	36	111	0.081
NEW YORK	WAYNE	36	117	0.083
NORTH CAROLINA	AVERY	37	11	0.079
NORTH CAROLINA	CHATHAM	37	37	0.083
NORTH CAROLINA	DUPLIN	37	61	0.081
NORTH CAROLINA	LENOIR	37	107	0.081
NORTH CAROLINA	MARTIN	37	117	0.081
NORTH CAROLINA	NEW HANOVER	37	129	0.079
NORTH CAROLINA	NORTHAMPTON	37	131	0.084
NORTH CAROLINA	PITT	37	147	0.083
NORTH CAROLINA	SWAIN	37	173	0.074
NORTH DAKOTA	BILLINGS	38	7	0.059
NORTH DAKOTA	CASS	38	17	0.062
NORTH DAKOTA	MERCER	38	57	0.058
OHIO	FRANKLIN	39	49	0.084
OHIO	PREBLE	39	135	0.082
OKLAHOMA	CLEVELAND	40	27	0.077
OKLAHOMA	COMANCHE	40	31	0.079
OKLAHOMA	MC CLAIN	40	87	0.079
OKLAHOMA	OKLAHOMA	40	109	0.082
OREGON	CLACKAMAS	41	5	0.065
OREGON	COLUMBIA	41	9	0.057
OREGON	JACKSON	41	29	0.069
OREGON	LANE	41	39	0.058
OREGON	MARION	41	47	0.059
PENNSYLVANIA	BLAIR	42	13	0.084
PENNSYLVANIA	LAWRENCE	42	73	0.078
PENNSYLVANIA	LUZERNE	42	79	0.084
PENNSYLVANIA	LYCOMING	42	81	0.079

State	County	State FIPS Code	County FIPS Code	Design Value ¹
PENNSYLVANIA	PERRY	42	99	0.083
PENNSYLVANIA	TIOGA	42	117	0.084
SOUTH CAROLINA	BARNWELL	45	11	0.083
SOUTH CAROLINA	CHARLESTON	45	19	0.074
SOUTH CAROLINA	CHESTER	45	23	0.084
SOUTH CAROLINA	COLLETON	45	29	0.08
SOUTH CAROLINA	EDGEFIELD	45	37	0.083
SOUTH CAROLINA	UNION	45	87	0.081
SOUTH CAROLINA	WILLIAMSBURG	45	89	0.073
SOUTH CAROLINA	YORK	45	91	0.084
TENNESSEE	DAVIDSON	47	37	0.08
TENNESSEE	LAWRENCE	47	99	0.078
TENNESSEE	RUTHERFORD	47	149	0.084
TEXAS	CAMERON	48	61	0.064
TEXAS	EL PASO	48	141	0.081
TEXAS	HIDALGO	48	215	0.075
TEXAS	HOOD	48	221	0.084
TEXAS	JEFFERSON	48	245	0.084
TEXAS	KAUFMAN	48	257	0.07
TEXAS	NUECES	48	355	0.081
TEXAS	ORANGE	48	361	0.081
TEXAS	ROCKWALL	48	397	0.083
TEXAS	SMITH	48	423	0.084
TEXAS	VICTORIA	48	469	0.076
TEXAS	WEBB	48	479	0.066
UTAH	CACHE	49	5	0.069
UTAH	DAVIS	49	11	0.082
UTAH	SALT LAKE	49	35	0.081
UTAH	UTAH	49	49	0.078
UTAH	WEBER	49	57	0.076
VERMONT	BENNINGTON	50	3	0.08
VERMONT	CHITTENDEN	50	7	0.077
VIRGINIA	CAROLINE	51	33	0.083
VIRGINIA	FAUQUIER	51	61	0.081
VIRGINIA	PAGE	51	139	0.08
VIRGINIA	ROCKBRIDGE	51	163	0.079
VIRGINIA	WYTHE	51	197	0.081
WASHINGTON	CLALLAM	53	9	0.043
WASHINGTON	CLARK	53	11	0.059
WASHINGTON	KING	53	33	0.068

State	County	State FIPS Code	County FIPS Code	Design Value ¹
WASHINGTON	KLICKITAT	53	39	0.065
WASHINGTON	PIERCE	53	53	0.067
WASHINGTON	SKAGIT	53	57	0.047
WASHINGTON	SPOKANE	53	63	0.07
WASHINGTON	THURSTON	53	67	0.058
WASHINGTON	WHATCOM	53	73	0.051
WEST VIRGINIA	GREENBRIER	54	25	0.082
WEST VIRGINIA	MONONGALIA	54	61	0.081
WISCONSIN	BROWN	55	9	0.081
WISCONSIN	COLUMBIA	55	21	0.076
WISCONSIN	DANE	55	25	0.076
WISCONSIN	DODGE	55	27	0.079
WISCONSIN	FLORENCE	55	37	0.069
WISCONSIN	FOND DU LAC	55	39	0.077
WISCONSIN	GREEN	55	45	0.074
WISCONSIN	MARATHON	55	73	0.072
WISCONSIN	ONEIDA	55	85	0.068
WISCONSIN	OUTAGAMIE	55	87	0.075
WISCONSIN	ROCK	55	105	0.084
WISCONSIN	SAUK	55	111	0.073
WISCONSIN	ST CROIX	55	109	0.072
WISCONSIN	VERNON	55	123	0.071
WISCONSIN	VILAS	55	125	0.068
WISCONSIN	WALWORTH	55	127	0.082
WISCONSIN	WASHINGTON	55	131	0.081
WISCONSIN	WAUKESHA	55	133	0.081
WISCONSIN	WINNEBAGO	55	139	0.078
WYOMING	TETON	56	39	0.065

Notes:

1. The level of the 8-hour ozone (O₃) National Ambient Air Quality Standard (NAAQS) is 0.08 parts per million (ppm). The air quality design value for the 8-hour O₃ NAAQS is the 3-year average of the annual 4th highest daily maximum 8-hour average O₃ concentration. The 8-hour O₃ NAAQS is not met when the 8-hour ozone design value is greater than 0.08 ppm (85 ppb rounds up).