COVID Data Tracker

Maps, charts, and data provided by CDC, updates Mon-Fri by 8 pm ET

CDC recommends use of COVID-19 Community Levels to determine the impact of COVID-19 on communities and what prevention steps to take. Transmission Levels are based on test positivity and case rates. Hospital Admissions Levels are based on hospital admissions and hospital bed occupancy. Healthcare facilities use Transmission Levels to determine infection control recommendations.

United States (7-day average)	Cases (7-day average)	Deaths (7-day average)	Current Hospitalizations	30-Day Change in Hospitalizations
Updated	Cases 7-day average: 113,644	Deaths 7-day average: 1,116	Current Hospitalizations: 43,000	30-Day Change in Hospitalizations: -4.6%

JUMP TO NEW OTHER PAGES
Wastewater Surveillance

Wastewater Surveillance

COVID-19: Wastewater Surveillance

Communities can use the presence of SARS-CoV-2 in the virus that causes COVID-19, in wastewater samples. These data can provide an early warning of COVID-19's spread in communities. Learn more about the Wastewater Surveillance System page.

Monitoring Wastewater Surveillance Data

Wastewater surveillance for COVID-19 is rapidly developing field. State, tribal, local, and territorial laboratories participating in the National Wastewater Surveillance System (NWSS) submit testing data to CDC. CDC then standardizes and integrates these data and displays them on this page. The NWSS is voluntary, and the data are representative of participating jurisdictions and may not be representative of the entire country.

Wastewater data are meant to be used with different sources of data to understand how and if reported COVID-19 spread in a community. Learn more about wastewater data by exploring each of the charts and maps.

More information about the data and download the data.

On This Page

Monitoring Wastewater Surveillance Data
Wastewater Metric Chart
Wastewater Metric Map
Data Downloads
Terms & Notes
About the Data

Maps, charts, and data provided by CDC, updates Mon-Fri by 8 pm ET. Data are preliminary and may be updated retroactively. Publication delays may occur during holidays. Data are provisional and subject to change. Wastewater surveillance data are reported to CDC's NWSS by participating jurisdictions. Data are displayed at the sewershed level, which is the smallest area for which wastewater data are collected. Sewersheds may cover all or part of a county, and sometimes multiple counties. Population served is the number of people who live in the sewershed area. Learn more about the National Wastewater Surveillance System.

View Footnotes and Download Data

Wastewater Metric Chart

This chart shows the percent change in the most recent 15 days compared with the 15 days before that. Each line represents a sewershed. Sewersheds are grouped by the percent change in SARS-CoV-2 virus levels in wastewater during the most recent 15 days compared with the 15 days before that. Sewersheds with too few data points, too few samples, or too little change in virus levels are not included in the chart. Learn more about how the wastewater data are processed.

Percent change in wastewater SARS-CoV-2 virus levels

- Large decrease (-50% or greater)
- Decrease (-49% to -10%)
- Stable (-9% to 9%)
- Increase (10% to 49%)
- Large increase (50% or more)
- Number of sites: 1,000

Download PNG

Select state or territory:

Select a state or territory

Reset Selections

Time Period: Sep 04, 2022 - Sep 18, 2022

Major Cities On | Major Cities Off

Metric:

- Current virus levels in wastewater are high
- Percent change in the last 15 days
- Percent of wastewater samples with detectable virus

Filter:

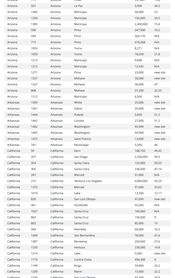
- Sites with no recent data
- Sites that started sampling after 12/1/21

Current virus levels in wastewater by site

This metric shows whether SARS-CoV-2 levels at a site are currently higher or lower than past virus levels at that site. Past virus levels are calculated using all data collected at that site from before December 1, 2021. The data history for these sites is not long enough to reflect the same surges as the other sites.

Note: Sites begin collecting data at different times. Sites that began reporting wastewater data after December 1, 2021 do not have enough historical data to be compared with data from before December 1, 2021. The data history for these sites is not long enough to reflect the same surges as the other sites.

Current SARS-CoV-2 virus levels by site: United States



Select legend categories to filter points on the map.

New site | 0% to 19% | 20% to 39% | 40% to 59% | 60% to 79% | 80% to 100% | No recent data

Data Downloads and Footnotes

Data Updated: Wednesday, September 21, 2022 8:00 PM ET

Data Table for Wastewater Surveillance Current Virus Levels (in %)

CDC's Division of Viral Hepatitis, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention, National Center for Emerging and Zoonotic Infectious Diseases, Updated September 21, 2022 8:00 PM ET

Download Data

Jurisdiction	Sewershed	Reporting Frequency	County #	Population Served	Percent change in the last 15 days
Alaska	1172	Alaska	Anchorage	209,009	56
Alaska	1173	Alaska	Anchorage	70,960	25
Alaska	1999	Alaska	Juneau	19,000	new site
Alaska	1174	Alaska	Kenai Peninsula	57,000	new site
Alaska	1175	Alaska	Kodiak	13,000	new site
Arizona	1212	Arizona	Maricopa	11,240	N/A
Arizona	1213	Arizona	Maricopa	68,021	N/A
Arizona	1992	Arizona	Yuma	4,725	-52.4
Arizona	1993	Arizona	Yuma	14,972	-45.1
Arizona	501	Arizona	La Paz	3,930	N/A
Arizona	502	Arizona	La Paz	3,930	N/A
Arizona	1994	Arizona	Maricopa	50,000	23
Arizona	1960	Arizona	Maricopa	50,000	23
Arizona	1961	Arizona	Maricopa	1,400,000	15.4
Arizona	1995	Arizona	Maricopa	2,400,000	15.4
Arizona	1996	Arizona	Maricopa	1,400,000	15.4
Arizona	395	Arizona	Pima	459,178	N/A
Arizona	396	Arizona	Pima	459,178	N/A
Arizona	1959	Arizona	Yuma	78,639	21.8
Arizona	1997	Arizona	Maricopa	5,868	N/A
Arizona	1210	Arizona	Maricopa	12,342	N/A
Arizona	1211	Arizona	Maricopa	12,342	N/A
Arizona	1507	Arizona	Mohave	30,000	new site
Arizona	1508	Arizona	Mohave	30,000	new site
Arizona	1214	Arizona	Maricopa	6,500	N/A
Arizona	1215	Arizona	Maricopa	6,500	N/A
Arizona	1463	Arizona	Saline	35,000	new site
Arizona	1464	Arizona	Saline	5,000	new site
Arizona	1462	Arizona	Lonoke	27,000	31.2
Arizona	1461	Arizona	Pulaski	400,000	31.2
Arizona	1460	Arizona	Pulaski	400,000	31.2
Arizona	1473	Arizona	Saint Francis	10,000	new site
Arizona	1474	Arizona	Saint Francis	5,500	40.9
California	35	California	Alameda	166,790	40.9
California	36	California	Alameda	1,220,000	40.9
California	354	California	Santa Clara	153,000	50.9
California	355	California	Santa Clara	153,000	50.9
California	2015	California	Ventura	15,000	new site
California	401	California	Humboldt	45,000	N/A
California	402	California	Humboldt	45,000	N/A
California	853	California	Santa Cruz	19,000	10
California	854	California	Santa Cruz	19,000	10
California	1409	California	San Bernardino	78,000	41.6
California	1410	California	San Bernardino	78,000	41.6
California	1269	California	Ventura	226,000	14.8
California	1270	California	Lake	9,000	new site
California	1419	California	Contra Costa	444,300	0
California	1420	California	Napa	76,000	0
California	1421	California	Napa	10,000	0
California	1299	California	San Luis Obispo	41,400	20.8
California	1300	California	San Luis Obispo	41,400	20.8
California	401	California	Humboldt	43,173	17.6
California	402	California	Humboldt	43,173	17.6
California	703	California	Santa Cruz	160,000	10.5
California	704	California	Santa Cruz	160,000	10.5
California	1026	California	Santa Cruz	160,000	N/A
California	1027	California	Santa Cruz	160,000	N/A
California	583	California	San Benito	40,000	N/A
California	584	California	San Benito	16,717	N/A
California	1375	California	Stanislaus	230,000	36.96
California	1376	California	Stanislaus	230,000	36.96
California	1377	California	Stanislaus	230,000	N/A
California	137	California	Alameda, Contra Costa	740,000	40.5
California	1424	California	Lake	7,000	new site
California	158	California	Fresno	650,000	51
California	159	California	Fresno	1,000,000	51
California	258	California	Stanislaus	230,000	N/A
California	259	California	Stanislaus	230,000	N/A
California	1411	California	San Francisco, San Mateo	1,000,000	40.5
California	362	California	San Mateo, San Francisco	210,000	50.71
California	363	California	El Dorado	40,000	N/A
California	1445	California	Imperial	50,000	new site
California	1446	California	Imperial	50,000	new site
California	506	California	Los Angeles, Ventura	100,000	19.4
California	507	California	Los Angeles, Ventura	100,000	19.4
California	778	California	Lake	10,000	15.6
California	779	California	Lake	10,000	15.6
California	1416	California	Los Angeles	197,000	N/A
California	1417	California	Los Angeles	197,000	N/A
California	1361	California	Stanislaus	30,000	24.3
California	1362	California	Stanislaus	30,000	24.3
California	295	California	Orange	1,400,000	24
California	296	California	Orange	1,400,000	24
California	356	California	San Bernardino	320,000	49.05
California	357	California	San Bernardino	750,000	49.05
California	1383	California	Sacramento	1,400,000	42.4
California	1384	California	San Benito	40,000	42.4
California	31	California	Imperial	40,000	45
California	32	California	Imperial	40,000	45
California	1447	California	Madera	30,000	new site
California	687	California	Solano	18,511	10.8
California	688	California	Solano	21,429	10.8
California	751	California	Napa	85,286	N/A
California	752	California	Napa	85,286	N/A
California	727	California	Kern	70,000	47.75
California	728	California	Kern	70,000	47.75
California	1447	California	Madera	67,340	new site
California	161	California	Weld	83,319	46.25
California	162	California	Weld	83,319	46.25
California	1196	California	Pitkin	5,714	new site
California	1197	California	Pitkin	5,571	N/A
California	1130	California	Teller	6,319	66.3
California	1131	California	Teller	6,319	66.3
California	1132	California	Teller	6,319	N/A
California	116	California	El Paso	150,243	N/A
California	117	California	El Paso	150,243	N/A
California	123	California	Summit	7,857	37.25
California	124	California	Summit	7,857	37.25
California	710	California	Larimer	35,617	38
California	711	California	Larimer	35,617	38
California	1448	California	Denver	705,454	new site
California	308	California	Adams	34,560	45.75
California	309	California	Adams	34,560	45.75
California	408	California	Summit	20,443	34
California	409	California	Arapahoe, Adams	200,000	34
California	378	California	Las Animas	14,286	62.8
California	379	California	Las Animas	14,286	62.8
California	1449	California	La Plata	15,000	new site
California	66	California	Boulder	89,383	47
California	67	California	Boulder	89,383	47
California	747	California	Arapahoe	25,716	N/A
California	748	California	Eagle	30,716	47
California	844	California	Eagle	16,286	47
California	845	California	Eagle	16,286	47
California	1450	California	Larimer	15,000	new site
California	150	California	Larimer	17,687	39.5
California	151	California	Larimer	17,687	39.5
California	1196	California	Pitkin	6,714	new site
California	1197	California	Pitkin	5,571	N/A
California	1130	California	Teller	6,319	66.3
California	1131	California	Teller	6,319	66.3
California	1132	California	Teller	6,319	N/A
California	1451	California	Garfield	15,000	new site
California	1452	California	Garfield	15,000	new site
California	1453	California	Garfield	15,000	new site
California

North Sea 573	New York	Albemarle	4,843	66.7
North Sea 574	New York	Orange	4,843	66.7
North Sea 575	New York	Orange	17,936	66.7
North Sea 576	New York	Orange	36,227	49.6
North Sea 577	New York	Orange	36,227	49.6
North Sea 578	New York	Orange	25,965	44.29
North Sea 579	New York	Orange	43,270	44.29
North Sea 580	New York	Franklin	7,175	87.87
North Sea 581	New York	Franklin	7,175	87.87
North Sea 582	New York	Orange	36,227	49.6
North Sea 583	New York	Saratoga	152,482	73.33
North Sea 584	New York	Saratoga	6,861	73.33
North Sea 585	New York	Warren	23,462	57.33
North Sea 586	New York	Saratoga	15,240	73.33
North Sea 588	New York	Erie	431,141	65.35
North Sea 589	New York	Erie	431,141	65.35
North Sea 590	New York	Schoharie	5,928	48.33
North Sea 1333	New York	Schenectady	20,698	N/A
North Sea 1334	New York	Albany	20,698	N/A
North Sea 1099	New York	Erie	17,980	47
North Sea 1100	New York	Erie	24,460	47
North Sea 1003	New York	Monroe	487,422	52
North Sea 1004	New York	Monroe	487,422	52
North Sea 1011	New York	Cattaraugus	15,982	39.33
North Sea 1012	New York	Cattaraugus	15,982	39.33
North Sea 1013	New York	Erie	431,141	65.35
North Sea 1078	New York	Wayne	8,931	57.67
North Sea 1079	New York	Ontario	18,547	57.67
North Sea 1133	New York	Oneida	21,649	73
North Sea 1134	New York	Oneida	21,649	73
North Sea 1135	New York	Schoharie	5,928	48.33
North Sea 1136	New York	Schoharie	5,928	48.33
North Sea 1137	New York	Montgomery	49,708	73
North Sea 1138	New York	Montgomery	49,708	73
North Sea 1139	New York	Oneida	21,649	73
North Sea 1140	New York	Broome	52,501	33.2
North Sea 1141	New York	Broome	52,501	33.2
North Sea 1142	New York	Clinton	20,893	new data
North Sea 1143	New York	Clinton	20,893	new data
North Sea 1487	New York	Westchester	44,875	new data
North Sea 1488	New York	Westchester	44,875	new data
North Sea 1489	New York	Orange	17,414	66.7
North Sea 514	New York	Onondaga	16,168	45.67
North Sea 515	New York	Madison	3,782	45.67
North Sea 517	New York	Livingston	4,739	53.07
North Sea 518	New York	Ontario	18,547	57.67
North Sea 519	New York	Onondaga	39,352	58.67
North Sea 520	New York	Onondaga	39,352	58.67
North Sea 521	New York	Madison	3,782	45.67
North Sea 527	New York	Madison	5,207	66.07
North Sea 528	New York	Monroe	19,049	52
North Sea 52	New York	Steuben	3,541	63.6
North Sea 53	New York	Steuben	3,577	63.6
North Sea 592	New York	Saint Lawrence	10,756	64.07
North Sea 593	New York	Jefferson	12,661	64.07
North Sea 594	New York	Montgomery	19,276	73
North Sea 595	New York	Lewis	2,953	55.33
North Sea 596	New York	Fulton	4,480	73.33
North Sea 597	New York	Kings	2,563,09	N/A
North Sea 598	New York	Queens	1,952,107	N/A
North Sea 599	New York	Kings	692,341	N/A
North Sea 600	New York	Queens	1,952,107	N/A
North Sea 601	New York	Kings	2,563,09	N/A
North Sea 602	New York	Bronx, New York	1,391,405	N/A
North Sea 603	New York	New York, Kings, Queens	1,154,473	N/A
North Sea 604	New York	Richmond	230,701	N/A
North Sea 605	New York	Richmond	230,701	N/A
North Sea 606	New York	Queens	473,812	27.25
North Sea 607	New York	Queens	788,772	N/A
North Sea 608	New York	Kings	1,869,921	N/A
North Sea 609	New York	Queens	1,952,107	N/A
North Sea 610	New York	Kings	692,341	N/A
North Sea 704	North Carolina	Rowan	31,436	N/A
North Sea 705	North Carolina	Cabarrus, Iredell, Lincoln	30,000	N/A
North Sea 1207	North Carolina	Surry	20,000	35
North Sea 1208	North Carolina	Surry	20,000	35
North Sea 1226	North Carolina	Rowan	31,436	59.4
North Sea 1227	North Carolina	Rowan	31,436	59.4
North Sea 1228	North Carolina	Surry	20,000	35
North Sea 1321	North Carolina	Mecklenburg	82,158	new data
North Sea 1322	North Carolina	Mecklenburg	4,459	new data
North Sea 1323	North Carolina	Northampton, Halifax	14,320	58
North Sea 1324	North Carolina	Northampton, Halifax	12,296	58
North Sea 85	North Carolina	Wake	84,180	45
North Sea 86	North Carolina	Wake	84,180	45
North Sea 1325	North Carolina	Duplin, Pender	10,000	new site
North Sea 1326	North Carolina	Duplin, Pender	10,000	new site
North Sea 539	North Carolina	Vance	13,090	50
North Sea 540	North Carolina	Vance	13,090	50
North Sea 537	North Carolina	Surry	20,000	N/A
North Sea 538	North Carolina	Surry	20,000	N/A
North Sea 1205	North Carolina	Cumberland	130,495	60
North Sea 1206	North Carolina	Guilford	135,827	59.6
North Sea 1209	North Carolina	Buncombe, Henderson	106,340	59.6
North Sea 1210	North Carolina	Buncombe, Henderson	170,000	37
North Sea 1211	North Carolina	Forsyth, Stokes	136,441	59.6
North Sea 1212	North Carolina	Wake	56,855	59.6
North Sea 1213	North Carolina	Wake	56,855	59.6
North Sea 1214	North Carolina	Forsyth	178,000	47.4
North Sea 1215	North Carolina	Forsyth	178,000	47.4
North Sea 85	North Carolina	Wake	84,180	45
North Sea 86	North Carolina	Wake	84,180	45
North Sea 1216	North Carolina	Mecklenburg	135,000	60
North Sea 1217	North Carolina	Mecklenburg	135,000	60
North Sea 1218	North Carolina	Guilford	135,827	59.6
North Sea 1219	North Carolina	Guilford	135,827	59.6
North Sea 1220	North Carolina	Rowan	31,436	59.4
North Sea 1221	North Carolina	Rowan	31,436	59.4
North Sea 1222	North Carolina	Rowan	22,946	N/A
North Sea 1223	North Carolina	New Hanover	24,210	new data
North Sea 1224	North Carolina	New Hanover	24,210	new data
North Sea 773	Ohio	Brown	4,773	new site
North Sea 774	Ohio	Montgomery	19,039	N/A
North Sea 775	Ohio	Montgomery	19,039	N/A
North Sea 1154	Ohio	Montgomery	19,039	N/A
North Sea 1155	Ohio	Franklin	14,500	60.67
North Sea 228	Ohio	Lucas	130,077	59.67
North Sea 229	Ohio	Washington	5,294	60
North Sea 273	Ohio	Hamilton	125,247	62
North Sea 274	Ohio	Licking	5,000	60
North Sea 315	Ohio	Miami	20,081	60.75
North Sea 316	Ohio	Miami	20,081	60.75
North Sea 1156	Ohio	Clinton	477,278	N/A
North Sea 1157	Ohio	Franklin	69,647	72.1
North Sea 1158	Ohio	Franklin	71,964	72.1
North Sea 385	Ohio	Hamilton	83,958	71.3
North Sea 386	Ohio	Lucas	77,000	61.67
North Sea 391	Ohio	Lucas	44,680	61
North Sea 392	Ohio	Lucas	44,680	61
North Sea 1159	Ohio	Montgomery	4,900	60.67
North Sea 471	Ohio	Wyandot	6,700	N/A
North Sea 472	Ohio	Montgomery	110,000	new data
North Sea 75	Ohio	Stark	85,000	N/A
North Sea 76	Ohio	Stark	85,000	N/A
North Sea 101	Ohio	Preble	8,400	62.5
North Sea 102	Ohio	Preble	8,400	62.5
North Sea 1160	Ohio	Ashtabula	12,000	60.67
North Sea 1161	Ohio	Ashtabula	12,000	60.67
North Sea 1162	Ohio	Hancock	13,000	60.67
North Sea 1163	Ohio	Hancock	13,000	60.67
North Sea 1164	Ohio	Wayne	21,000	60
North Sea 1165	Ohio	Lorain	50,000	60.67
North Sea 197	Ohio	Sandusky	25,000	N/A
North Sea 198	Ohio	Sandusky	25,000	N/A
North Sea 1166	Ohio	Richland	52,000	N/A
North Sea 1167	Ohio	Richland	52,000	N/A
North Sea 274	Ohio	Henry	12,246	N/A
North Sea 275	Ohio	Henry	12,000	61.67
North Sea 301	Ohio	Lucas	44,680	61
North Sea 302	Ohio	Lucas	44,680	61
North Sea 1168	Ohio	Montgomery	4,900	60.67
North Sea 471	Ohio	Wyandot	6,700	N/A
North Sea 472	Ohio	Montgomery	110,000	new data
North Sea 75	Ohio	Stark	85,000	N/A
North Sea 76	Ohio	Stark	85,000	N/A
North Sea 101	Ohio	Preble	8,400	62.5
North Sea 102	Ohio	Preble	8,400	62.5
North Sea 1169	Ohio	Ashtabula	12,000	60.67
North Sea 1170	Ohio	Ashtabula	12,000	60.67
North Sea 1171	Ohio	Hancock	13,000	60.67
North Sea 1172	Ohio	Hancock	13,000	60.67
North Sea 1173	Ohio	Wayne	21,000	60
North Sea 1174	Ohio	Lorain	50,000	60.67
North Sea 197	Ohio	Sandusky	25,000	N/A
North Sea 198	Ohio	Sandusky	25,000	N/A
North Sea 1175	Ohio	Richland	52,000	N/A
North Sea 1176	Ohio	Richland	52,000	N/A
North Sea 274	Ohio	Henry	12,246	N/A
North Sea 275	Ohio	Henry	12,000	61.67
North Sea 301	Ohio	Lucas	44,680	61
North Sea 302	Ohio	Lucas	44,680	61
North Sea 1177	Ohio	Montgomery	4,900	60.67
North Sea 471	Ohio	Wyandot	6,700	N/A
North Sea 472	Ohio	Montgomery	110,000	new data
North Sea 75	Ohio	Stark	85,000	N/A
North Sea 76	Ohio	Stark	85,000	N/A
North Sea 101	Ohio	Preble	8,400	62.5
North Sea 102	Ohio	Preble	8,400	62.5
North Sea 1178	Ohio	Ashtabula	12,000	60.67
North Sea 1179	Ohio	Ashtabula	12,000	60.67
North Sea 1180	Ohio	Hancock	13,000	60.67
North Sea 1181	Ohio	Hancock	13,000	60.67
North Sea 1182	Ohio	Wayne	21,000	60
North Sea 1183	Ohio	Lorain	50,000	60.67
North Sea 197	Ohio	Sandusky	25,000	N/A
North Sea 198	Ohio	Sandusky	25,000	N/A
North Sea 1184	Ohio	Richland	52,000	N/A
North Sea 1185	Ohio	Richland	52,000	N/A
North Sea 274	Ohio	Henry	12,246	N/A
North Sea 275	Ohio	Henry	12,000	61.67
North Sea 301	Ohio	Lucas	44,680	61
North Sea 302	Ohio	Lucas	44,680	61
North Sea 1186	Ohio	Montgomery	4,900	60.67
North Sea 471	Ohio	Wyandot	6,700	N/A
North Sea 472	Ohio	Montgomery	110,000	new data
North Sea 75	Ohio	Stark	85,000	N/A
North Sea 76	Ohio	Stark	85,000	N/A
North Sea 101	Ohio	Preble	8,400	62.5
North Sea 102	Ohio	Preble	8,400	62.5
North Sea 1187	Ohio	Ashtabula	12,000	60.67
North Sea 1188	Ohio	Ashtabula	12,000	60.67
North Sea 1189	Ohio	Hancock	13,000	60.67
North Sea 1190	Ohio	Hancock	13,000	60.67
North Sea 1191	Ohio	Wayne	21,000	60
North Sea 1192	Ohio	Lorain	50,000	60.67
North Sea 197	Ohio	Sandusky	25,000	N/A
North Sea 198	Ohio	Sandusky	25,000	N/A
North Sea 1193	Ohio	Richland	52,000	N/A
North Sea 1194	Ohio	Richland	52,000	N/A
North Sea 274	Ohio	Henry	12,246	N/A
North Sea 275	Ohio	Henry	12,000	61.67
North Sea 301	Ohio	Lucas	44,680	61
North Sea 302	Ohio	Lucas	44,680	61
North Sea 1195	Ohio	Montgomery	4,900	60.67
North Sea 471	Ohio	Wyandot	6,700	N/A
North Sea 472	Ohio	Montgomery	110,000	new data
North Sea 75	Ohio	Stark	85,000	N/A
North Sea 76	Ohio	Stark	85,000	N/A
North Sea 101	Ohio	Preble	8,400	62.5
North Sea 102	Ohio	Preble	8,400	62.5
North Sea 1196	Ohio	Ashtabula	12,000	60.67
North Sea 1197	Ohio	Ashtabula	12,000	60.67
North Sea 1198	Ohio	Hancock	13,000	60.67
North Sea 1199	Ohio	Hancock	13,000	60.67
North Sea 1200	Ohio	Wayne	21,000	60
North Sea 1201	Ohio	Lorain	50,000	60.67
North Sea 197	Ohio	Sandusky	25,000	N/A
North Sea 198	Ohio	Sandusky	25,000	N/A
North Sea 1202	Ohio	Richland	52,000	N/A
North Sea 1203	Ohio	Richland	52,000	N/A
North Sea 274	Ohio	Henry	12,246	N/A
North Sea 275	Ohio	Henry	12,000	61.67
North Sea 301	Ohio	Lucas	44,680	61
North Sea 302	Ohio	Lucas	44,680	61
North Sea 1204	Ohio	Montgomery	4,900	60.67
North Sea 471	Ohio	Wyandot	6,700	N/A
North Sea 472	Ohio	Montgomery	110,000	new data
North Sea 75	Ohio	Stark	85,000	N/A
North Sea 76	Ohio	Stark	85,000	N/A
North Sea 101	Ohio	Preble	8,400	62.5
North Sea 102	Ohio	Preble	8,400	62.5
Oklahoma 631	Oklahoma	Beaver	5,000	N/A
Oklahoma 632	Oklahoma	Beckham	11,500	53.6
Oklahoma 633	Oklahoma	Beckham	11,500	53.6
Oklahoma 769	Oklahoma	Comanche	93,000	69.8
Oklahoma 770	Oklahoma	Comanche	93,000	69.8
Oklahoma 771	Oklahoma	Garfield	51,000	41.8
Oklahoma 772	Oklahoma	Garfield	51,000	41.8
Oregon 1291	Oregon	Clackamas, Multnomah, Washington	45,000	43.8
Oregon 1292	Oregon	Washington, Clackamas	45,000	43.8
Oregon 469	Oregon	Jackson	21,105	N/A
Oregon 470	Oregon	Jackson	21,105	N/A
Oregon 1293	Oregon	Clackamas	14,236	44.33
Oregon 633	Oregon	Clackamas	14,236	44.33
Oregon 1294	Oregon	Lincoln	6,863	39.6
Oregon 1295	Oregon	Lincoln	6,863	39.6
Oregon 949	Oregon	Deschutes	32,255	41.75
Oregon 950	Oregon	Deschutes	32,255	41.75
Oregon 947	Oregon	Marion	12,845	N/A
Oregon 948	Oregon	Marion	12,845	N/A
Oregon 1296	Oregon	Jackson	130,788	N/A
Oregon 1297	Oregon	Jackson	130,788	N/A
Oregon 1298	Oregon	Clackamas, Washington	25,780	new site
Oregon 1299	Oregon	Clackamas, Washington	25,780	new site
Oregon 797	Oregon	Clackamas	76,643	N/A
Oregon 798	Oregon	Clackamas	76,643	N/A
Oregon 506	Oregon	Lane	8,923	N/A
Oregon 507	Oregon	Lane	8,923	N/A
Oregon 1300	Oregon	Washington	46,000	N/A
Oregon 1301	Oregon	Washington	46,000	N/A
Oregon 1302	Oregon	Washington	362,228	43.75
Oregon 1303	Oregon	Washington	362,228	43.75
Oregon 1304	Oregon	Washington	46,000	N/A
Oregon 1305	Oregon	Washington	46,000	N/A
Oregon 934	Oregon	Umatilla	17,500	62.5
Oregon 935	Oregon	Umatilla	17,500	62.5
Oregon 773	Oregon	Clackamas	150,000	N/A
Oregon 774	Oregon	Clackamas	150,000	N/A
Oregon 1306	Oregon	Clatsop	7,250	43.75
Oregon 1307	Oregon	Clatsop	7,250	43.75
Oregon 668	Oregon	Hamlet	24,130	45.33
Oregon 669	Oregon	Hamlet	24,130	45.33
Oregon 952	Oregon	Hood River	7,669	N/A
Oregon 953	Oregon	Coos	16,915	N/A
Oregon 958	Oregon	Harbour	12,966	N/A
Oregon 959	Oregon	Harbour	12,966	N/A
Oregon 1308	Oregon	Columbia	12,729	N/A
Oregon 1309	Oregon	Columbia	12,729	N/A
Oregon 1310	Oregon	Coquille	10,000	N/A
Oregon 1311	Oregon	Coquille	10,000	N/A
Oregon 1312	Oregon	Malheur	45,000	N/A
Oregon 1313	Oregon	Malheur	45,000	N/A
Oregon 1314	Oregon	Yamhill	8,000	N/A
Oregon 1315	Oregon	Yamhill	8,000	N/A
Oregon 1316	Oregon	Douglas	15,000	N/A
Oregon 1317	Oregon	Douglas	15,000	N/A
Oregon 1318	Oregon	Klamath	20,000	N/A
Oregon 1319	Oregon	Klamath	20,000	N/A
Oregon 1320	Oregon	Josephine	10,000	N/A
Oregon 1321	Oregon	Josephine	10,000	N/A
Oregon 1322	Oregon	Curry	6,000	N/A
Oregon 1323	Oregon	Curry	6,000	N/A
Pennsylvania 1324	Pennsylvania	Allegheny	6,000	45.67
Pennsylvania 1325	Pennsylvania	Allegheny	6,000	45.67
Pennsylvania 1326	Pennsylvania	Lehigh	6,958	45.67
Pennsylvania 1327	Pennsylvania	Lehigh	6,958	45.67
Pennsylvania 1328	Pennsylvania	Westmoreland	20,000	60.5
Pennsylvania 1329	Pennsylvania	Erie	25,000	60.5
Pennsylvania 1330	Pennsylvania	Erie	25,000	60.5
Pennsylvania 1331	Pennsylvania	Monroe	25,000	60.33
Pennsylvania 1332	Pennsylvania	Allegheny	6,000	45.67
Pennsylvania 1454	Pennsylvania	Bucks	55,000	51
Pennsylvania 1455	Pennsylvania	Bucks	54,000	51
Pennsylvania 1456	Pennsylvania	Delaware	6,800	55.88
Pennsylvania 1457	Pennsylvania	Delaware	6,800	55.88
Pennsylvania 1458	Pennsylvania	Allegheny, Butler	45,000	49.4
Pennsylvania 1459	Pennsylvania	Allegheny, Butler	45,000	49.4
Pennsylvania 1460	Pennsylvania	Montgomery	30,000	25.67
Pennsylvania 1461	Pennsylvania	Erie	25,000	60.5
Pennsylvania 1462	Pennsylvania	Erie	47,000	46.88
Pennsylvania 1463	Pennsylvania	Erie	47,000	46.88
Rhode Island 1464	Rhode Island	Providence	4,000	45.67
Rhode Island 1465	Rhode Island	Providence	20,000	N/A
Rhode Island 1466	Rhode Island	Providence	20,000	N/A
Rhode Island 465	Rhode Island	Kent	6,200	47.2
Rhode Island 466	Rhode Island	Providence	130,000	47.2
Rhode Island 468	Rhode Island	Providence	240,000	78.4
Rhode Island 1467	Rhode Island	Kent	6,200	47.2
Rhode Island 1468	Rhode Island	Kent	6,200	47.2
Rhode Island 1134	Rhode Island	Kent	30,224	42.8
Rhode Island 1135	Rhode Island	Kent	30,224	42.8
South Carolina 474	Rhode Island	Providence, Kent	80,000	N/A
South Carolina 475	Rhode Island	Kent	80,000	N/A
South Carolina 599	South Carolina	Greenwood	12,000	27.4
South Carolina 600	South Carolina	Greenwood	12,000	27.4
South Carolina 598	South Carolina	Georgetown	40,000	42.6
South Carolina 599	South Carolina	Georgetown	40,000	42.6
South Carolina 600	South Carolina	Greenwood	48,000	43.4
South Carolina 601	South Carolina	Greenwood	48,000	43.4
South Carolina 598	South Carolina	Charleston	64,175	N/A
South Carolina 599	South Carolina	Charleston	64,175	N/A
South Carolina 600	South Carolina	Georgetown	40,000	42.6
South Carolina 601	South Carolina	Georgetown	40,000	42.6
South Carolina 1469	South Carolina	Darlington	12,000	44.67
South Carolina 1470	South Carolina	Darlington	8,100	N/A
South Carolina 1471	South Carolina	Darlington	8,100	N/A
South Dakota 1145	South Dakota	Yankton	15,500	43.4
South Dakota 1146	South Dakota	Yankton	15,500	43.4
South Dakota 1266	South Dakota	Lincoln, Minnehaha	210,000	39.4
South Dakota 1267	South Dakota	Lincoln	210,000	39.4
Tennessee 1507	Tennessee	Sullivan	10,000	45.67
Tennessee 1508	Tennessee	Sullivan, Hawkins	30,000	new site
Tennessee 1509	Tennessee	Sullivan, Hawkins	30,000	new site
Tennessee 1260	Tennessee	Davidson	699,000	53.8
Tennessee 1261	Tennessee	Davidson	699,000	53.8
Tennessee 1268	Tennessee	Hawkins, Sullivan	60,000	new site
Tennessee 1269	Tennessee	Hawkins, Sullivan	60,000	new site
Texas 846	Texas	Bexar	230,000	37.4
Texas 847	Texas	Bexar	230,000	37.4
Texas 848	Texas	Dallas	300,000	36.8
Texas 849	Texas	Dallas	300,000	36.8
Texas 1148	Texas	Travis	169,000	26.25
Texas 1149	Texas	Travis	169,000	26.25
Texas 1150	Texas	El Paso	130,000	N/A
Texas 251	Houston	Harris	124,000	N/A
Texas 252	Houston	Harris	52,555	N/A
Texas 253	Houston	Harris	20,161	N/A
Texas 254	Houston	Harris	19,867	N/A
Texas 255	Houston	Harris	20,618	N/A
Texas 256	Houston	Harris	20,618	N/A
Texas 406	Houston	Harris	39,188	N/A
Texas 407	Houston	Harris, Fort Bend	39,188	N/A
Texas 483	Houston	Harris	3,623	N/A
Texas 484	Houston	Harris	34,798	N/A
Texas 749	Houston	Harris	8,612	N/A
Texas 750	Houston	Harris	8,612	N/A
Texas 1151	Texas	Galveston	29,000	new site
Texas 1152	Texas	Galveston	29,000	new site
Texas 848	Texas	Bexar	630,000	21.6
Texas 849	Texas	Bexar	30,000	21.6
Texas 1153	Texas	Dallas	289,000	N/A
Texas 1154	Texas	Dallas	289,000	N/A
Texas 1155	Texas	Harris	52,555	N/A
Texas 1156	Texas	Harris	19,867	N/A
Texas 1157	Texas	Harris	20,618	N/A
Texas 1158	Texas	Harris	20,618	N/A
Texas 406	Houston	Harris	39,188	N/A
Texas 407	Houston	Harris, Fort Bend	39,188	N/A
Texas 483	Houston	Harris	3,623	N/A
Texas 484	Houston	Harris	34,798	N/A
Texas 749	Houston	Harris	8,612	N/A
Texas 750	Houston	Harris	8,612	N/A
Texas 1159	Texas	Galveston	29,000	new site
Texas 1160	Texas	Galveston	29,000	new site
Texas 848	Texas	Bexar	630,000	21.6
Texas 849	Texas	Bexar	30,000	21.6
Texas 1161	Texas	Dallas	289,000	N/A
Texas 1162	Texas	Dallas	289,000	N/A
Texas 1163	Texas	Harris	52,555	N/A
Texas 1164	Texas	Harris	19,867	N/A
Texas 1165	Texas	Harris	20,618	N/A
Texas 1166	Texas	Harris	20,618	N/A
Texas 406	Houston	Harris	39,188	N/A
Texas 407	Houston	Harris, Fort Bend	39,188	N/A
Texas 483	Houston	Harris	3,623	N/A
Texas 484	Houston	Harris	34,798	N/A
Texas 749	Houston	Harris	8,612	N/A
Texas 750	Houston	Harris	8,612	N/A
Texas 1167	Texas	Galveston	29,000	new site
Texas 1168	Texas	Galveston	29,000	new site
Texas 848	Texas	Bexar	630,000	21.6
Texas 849	Texas	Bexar	30,000	21.6
Texas 1169	Texas	Dallas	289,000	N/A
Texas 1170	Texas	Dallas	289,000	N/A
Texas 1171	Texas	Harris	52,555	N/A
Texas 1172	Texas	Harris	19,867	N/A
Texas 1173	Texas	Harris	20,618	N/A
Texas 1174	Texas	Harris	20,618	N/A
Texas 406	Houston	Harris	39,188	N/A
Texas 407	Houston	Harris, Fort Bend	39,188	N/A
Texas 483	Houston	Harris	3,623	N/A
Texas 484	Houston	Harris	34,798	N/A
Texas 749	Houston	Harris	8,612	N/A
Texas 750	Houston	Harris	8,612	N/A
Texas 1175	Texas	Galveston	29,000	new site
Texas 1176	Texas	Galveston	29,000	new site
Texas 848	Texas	Bexar	630,000	21.6
Texas 849	Texas	Bexar	30,000	21.6
Texas 1177	Texas	Dallas	289,000	N/A
Texas 1178	Texas	Dallas	289,000	N/A
Texas 1179	Texas	Harris	52,555	N/A
Texas 1180	Texas	Harris	19,867	N/A
Texas 1181	Texas	Harris	20,618	N/A
Texas 1182	Texas	Harris	20,618	N/A
Texas 406	Houston	Harris	39,188	N/A
Texas 407	Houston	Harris, Fort Bend	39,188	N/A
Texas 483	Houston	Harris	3,623	N/A
Texas 484	Houston	Harris	34,798	N/A
Texas 749	Houston	Harris	8,612	N/A
Texas 750	Houston	Harris	8,612	N/A
Texas 1183	Texas	Galveston	29,000	new site
Texas 1184	Texas	Galveston	29,000	new site
Texas 848	Texas	Bexar	630,000	21.6
Texas 849	Texas	Bexar	30,000	21.6
Texas 1185	Texas	Dallas	289,000	N/A
Texas 1186	Texas	Dallas	289,000	N/A
Texas 1187	Texas	Harris	52,555	N/A
Texas 1188	Texas	Harris	19,867	N/A
Texas 1189	Texas	Harris	20,618	N/A
Texas 1190	Texas	Harris	20,618	N/A
Texas 406	Houston	Harris	39,188	N/A
Texas 407	Houston	Harris, Fort Bend	39,188	N/A
Texas 483	Houston	Harris	3,623	N/A
Texas 484	Houston	Harris	34,798	N/A
Texas 749	Houston	Harris	8,612	N/A
Texas 750	Houston	Harris	8,612	N/A
Texas 1191	Texas	Galveston	29,000	new site
Texas 1192	Texas	Galveston	29,000	new site
Texas 848	Texas	Bexar	630,000	21.6
Texas 849	Texas	Bexar	30,000	21.6
Texas 1193	Texas	Dallas	289,000	N/A
Texas 1194	Texas	Dallas	289,000	N/A
Texas 1195	Texas	Harris	52,555	N/A
Texas 1196	Texas	Harris	19,867	N/A
Texas 1197	Texas	Harris	20,618	N/A
Texas 1198	Texas	Harris	20,618	N/A
Texas 406	Houston	Harris	39,188	N/A
Texas 407	Houston	Harris, Fort Bend	39,188	N/A
Texas 483	Houston	Harris	3,623	N/A
Texas 484	Houston	Harris	34,798	N/A
Texas 749	Houston	Harris	8,612	N/A
Texas 750	Houston	Harris	8,612	N/A
Texas 1199	Texas	Galveston	29,000	new site
Texas 1200	Texas	Galveston	29,000	new site
Texas 848	Texas	Bexar	630,000	21.6
Texas 849	Texas	Bexar	30,000	21.6
Texas 1201	Texas	Dallas	289,000	N/A
Texas 1202	Texas	Dallas	289,000	N/A
Texas 1203	Texas	Harris	52,555	N/A
Texas 1204	Texas	Harris	19,867	N/A
Texas 1205	Texas	Harris	20,618	N/A
Texas 1206	Texas	Harris	20,618	N/A
Texas 406	Houston	Harris	39,188	N/A
Texas 407	Houston	Harris, Fort Bend	39,188	N/A
Texas 483	Houston	Harris	3,623	N/A
Texas 484	Houston	Harris	34,798	N/A
Texas 749	Houston	Harris	8,612	N/A
Texas 750	Houston	Harris	8,612	N/A
Texas 1207	Texas	Galveston	29,000	new site
Texas 1208	Texas	Galveston	29,000	new site
Texas 848	Texas	Bexar	630,000	21.6
Texas 849	Texas	Bexar	30,000	21.6
Texas 1209	Texas	Dallas	289,000	N/A
Texas 1210	Texas	Dallas	289,000	N/A
Texas 1211	Texas	Harris	52,555	N/A
Texas 1212	Texas	Harris	19,867	N/A
Texas 1213	Texas	Harris	20,618	N/A
Texas 1214	Texas	Harris	20,618	N/A
Texas 406	Houston	Harris	39,188	N/A
Texas 407	Houston	Harris, Fort Bend	39,188	N/A
Texas 483	Houston	Harris	3,623	N/A
Texas 484	Houston	Harris	34,798	N/A
Texas 749	Houston	Harris	8,612	N/A
Texas 750	Houston	Harris	8,612	N/A
Texas 1215	Texas	Galveston	29,000	new site
Texas 1216	Texas	Galveston	29,000	new site
Texas 848	Texas	Bexar	630,000	21.6
Texas 849	Texas	Bexar	30,000	21.6
Texas 1217	Texas	Dallas	289,000	N/A
Texas 1218	Texas	Dallas	289,000	N/A
Texas 1219	Texas	Harris	52,555	N/A
Texas 1220	Texas	Harris	19,867	N/A
Texas 1221	Texas	Harris	20,618	N/A
Texas 1222	Texas	Harris	20,618	N/A

51	Virginia	Loudoun	10,178	N/A
51	Virginia	Norfolk City, Virginia Beach City, Norfolk City	530,848	31.46
51	Virginia	Norfolk City, Virginia Beach City, Chesapeake City, Portsmouth City	1,165,347	N/A
51	Virginia	Northern Neck, Hampton City, Newport News City, Gloucester, Newport News City, York	99,112	N/A
51	Virginia	Hampton City, Newport News City	141,543	31.4
51	Virginia	Nelson County	16,000	45
51	Virginia	Hanover	109,979	45.67
51	Virginia	Orange	4,721	N/A
51	Virginia	Petersburg City, Chesterfield, Prince George County, Hopewell City, Dinwiddie, Hopewell City	71,416	new site
51	Virginia	Chesapeake City, Norfolk City, Virginia Beach City	530,848	47.33
51	Virginia	Isle Of Wight, Suffolk City, Chesapeake City, Portsmouth City	197,608	18
51	Virginia	Stafford	44,000	46.67
51	Virginia	Albemarle	114,266	78.67
51	Virginia	Frederick	16,563	new site
51	Virginia	Bedford, Pulaski, Montgomery	57,597	67.67
51	Virginia	Richmond City, Goochland, Henrico	1,165,347	N/A
51	Virginia	Alexandria City, Fairfax	300,000	50.33
51	Virginia	Prince William, Fauquier, Manassas Park City, Fairfax, Fairfax City, Loudoun, Manassas City	350,000	50
51	Virginia	Portsmouth City, Chesapeake City, Suffolk City, Isle Of Wight	197,608	N/A
51	Virginia	James City, York, Newport News City, New Kent, Williamsburg City	69,059	N/A
51	Virginia	Montgomery	52,500	82
51	Virginia	Montgomery	201,627	new site
51	Virginia	Hanover	20,000	18.6
51	Virginia	Henrico	9,945	29.6
51	Virginia	Franklin	5,000	52.8
51	Virginia	Colonial Heights City, Petersburg City, Prince George County, Dinwiddie	65,000	24.6
51	Virginia	Hanover	12,000	N/A
51	Virginia	Chesapeake City, Virginia Beach City, Norfolk City, Portsmouth City	1,165,347	47
51	Virginia	Amherst, Bedford, Lynchburg City	220,000	69
51	Virginia	Harrisonburg City, Rockingham	81,000	76.67
51	Virginia	Prince William, Stafford	299,455	50.67
51	Virginia	Washington	7,300	33.67
51	Virginia	Hampton City, Norfolk City	78,322	N/A
51	Virginia	Newport News City, Hampton City	118,497	13.8
51	Virginia	James City, York, Hampton City, Newport News City	141,543	N/A
53	Washington	Snohomish	10,500	N/A
53	Washington	Grant	8,875	N/A
53	Washington	King, Snohomish	288,000	38.8
53	Washington	Snohomish	37,650	27.6
53	Washington	Grant	8,475	N/A
53	Washington	Benton	59,609	N/A
53	Washington	Benton	15,500	N/A
53	Washington	Benton	83,000	N/A
53	Washington	Clark	120,000	29
53	Washington	King, Pierce	896,000	18.8
53	Washington	Clark	162,100	21.4
53	Washington	Clark	118,497	13.8
53	Washington	Clark	81,140	21.2
53	Washington	Snohomish	120,000	19.67
53	Washington	Snohomish	3,700	N/A
53	Washington	Clark	25,457	N/A
53	Washington	Clark	10,530	N/A
53	Washington	Pierce	43,000	N/A
53	Washington	Pierce	205,655	N/A
53	Washington	Spokane	120,000	N/A
53	Washington	King, Pierce	896,000	18.8
53	Washington	King, Snohomish	789,000	13.8
53	Washington	Snohomish	20,000	35
53	Washington	Snohomish, King	288,000	new site
53	Washington	Snohomish	7,125	22.4
53	Washington	Snohomish	173,800	12.2
53	Washington	Pierce	16,950	26.6
53	Washington	Clark	120,000	N/A
53	Washington	Snohomish	120,000	N/A
53	Washington	Franklin	73,000	N/A
53	Washington	Spokane	225,000	N/A
53	Washington	Pierce	20,000	N/A
53	Washington	Raleigh	88,900	47.75
53	Washington	Wayne	98,900	47.75
53	Washington	Randolph	13,156	N/A
53	Washington	Lewis	4,555	N/A
53	Washington	Lewis	10,364	new site
53	Washington	Putnam	28,759	N/A
53	Washington	Wyoming	24,000	N/A
53	Washington	Kanawha	50,000	N/A
53	Washington	Wood	42,000	120
53	Washington	Wood	48,050	N/A
53	Washington	Mercer	36,000	N/A
53	Washington	Mercer	26,498	N/A
53	Washington	Taylor	6,071	N/A
53	Washington	Wood	80,000	N/A
53	Washington	Mineral	8,168	N/A
53	Washington	Ohio	50,000	N/A
53	Washington	Wayne, Cabell	50,000	N/A
53	Washington	Brooke	6,468	N/A
53	Washington	Hancock	17,000	N/A
55	Washington	Waupaca	14,000	86.75
55	Washington	Columbia	6,900	50
55	Washington	Dane	51,000	49.4
55	Washington	Washington, Dodge	17,320	44.33
55	Washington	Dane	3,100	36.67
55	Washington	Jefferson, Waukesha	22,300	34.2
55	Washington	Racine	139,000	34.2
55	Washington	Portage	27,000	36.8
55	Washington	Douglas	28,000	26
55	Washington	Dane	43,000	54.75
55	Washington	Brown, Kewaunee	189,000	54.6
55	Washington	Kenosha	12,000	44.6
55	Washington	La Crosse	85,000	69.8
55	Washington	Juneau	4,400	68.67
55	Washington	Dunn	5,000	27.67
55	Washington	Lincoln	9,700	45.33
55	Washington	Ozaukee, Milwaukee	130,007	56.2
55	Washington	Waukesha, Milwaukee, Racine, Washington, Ozaukee	615,934	54.8
55	Washington	Manitowoc	34,500	59.33
55	Washington	Waukesha	11,000	67.4
55	Washington	Marathon, Wood	19,300	41.4
55	Washington	Marinette	3,500	69.33
55	Washington	Grant	11,000	48.6
55	Washington	Saint Croix, Pierce	15,900	61
55	Washington	Sheboygan	75,000	58.2
55	Washington	Dane	33,000	40.8
55	Washington	Vernon	4,400	51.4
55	Washington	Waukesha	72,000	N/A
55	Washington	Ashland	8,200	46.67
55	Washington	Jackson	5,000	49.8
55	Washington	Jefferson, Dodge	23,660	52.4

Terms to Know

Virus levels: SARS-CoV-2 viral RNA concentrations in wastewater. RNA is the virus's genetic material.

Normalization: Wastewater measurements account for differences in factors such as wastewater flow rate and number of people served by a sewer system. In other words, normalization reduces excess variation (or "noise") and helps account for things like changing wastewater flow rates or rainfall that can impact wastewater. Normalized data can be used to compare time and between different sites. Metrics presented on this page are based on SARS-CoV-2 viral RNA concentrations in wastewater normalized by the geometric mean of [Pepper-Nimmo Enteric Enveloped Virus Metric](#).

Sewershed: The geographic area contributing wastewater to a sampling location. Sewersheds may cross county or state boundaries. Sewersheds are referred to as "sites" on the map.

About the Data

"Data will update Monday through Friday as soon as they are reviewed and verified, oftentimes before 8 pm ET. Updates will occur the following day when reporting is delayed on weekends or holidays. Note: Daily updates (Mon-Fri) might be delayed due to delays in reporting.

Percent of sites in each percent change category over time

- At any point in time, this chart shows what percent of sites reported decreased levels of virus in the previous 15 days, what percent reported increased levels, and what percent stayed the same.
- Hover your mouse over the chart to see the exact percentages.
- For each date, the chart shows the most recent percent change category assigned to each site. Sites are assigned a percent change category based on the most recent 15 days of sampling sites with current data. This information is provided on a stacked area chart to show the change in the percent of sites in each category over time (since August 1, 2021).
- To simplify the chart, the "-99 to 0%" and "0 to 99" categories were combined into "-99 to 99%," and the "100% to 199%" and "200% and Greater" categories were combined into "100% and Greater." Percent change values can be changed since January 1, 2021, the total number of sites with current data is shown as a black line on the chart.
- Sites with at least one sample and no SARS-CoV-2 viral detections over the past 15 days are listed as "Non-detect" and are shown on the map as follows:
  - The Non-detect percent change category for each date may not add up to 100% due to rounding.

Current virus levels in wastewater as SPH

- This metric shows whether SARS-CoV-2 levels at a site are currently higher or lower than past levels at the same site. It is calculated by first ordering a site's SPH values chronologically and then comparing the most recent 15 days of data to data from the lowest to highest level. The ordered levels are then grouped into five categories (0-19%, 20-39%, 40-59%, 60-79%, and 80-100%) based on how they compare to the site's historical concentrations. For example, if a site's SPH group represent the lowest levels seen at that sampling site and those in the 80-100% group represent the highest, a site with SPH values in the 40-59% group would be in the middle of the historical range for that site. Because the reporting requirements for data changed, the historical category for each date may not add up to 100% due to rounding.

Current virus levels in wastewater as SPH

- This metric shows whether SARS-CoV-2 levels at a site are currently higher or lower than past levels at the same site. It is calculated by first ordering a site's SPH values chronologically and then comparing the most recent 15 days of data to data from the lowest to highest level. The ordered levels are then grouped into five categories (0-19%, 20-39%, 40-59%, 60-79%, and 80-100%) based on how they compare to the site's historical concentrations. For example, if a site's SPH group represent the lowest levels seen at that sampling site and those in the 80-100% group represent the highest, a site with SPH values in the 40-59% group would be in the middle of the historical range for that site. Because the reporting requirements for data changed, the historical category for each date may not add up to 100% due to rounding.
- The "New site" category means a site just started collecting wastewater samples and has reported fewer than 10 samples, which is not enough samples to meaningfully compare levels at the site over time.

Percent change in the last 15 days

- This metric shows how much normalized SARS-CoV-2 viral levels in wastewater at each site increased or decreased in the last 15 days compared to the 15 days before that. Percent change is calculated by first comparing the most recent 15 days of data to the previous 15 days. Then, the percent change between these two periods is calculated. Finally, the percent change is categorized into one of five categories. Sites with a percent change of zero have the same normalized concentrations in wastewater as a sampling site have changed over the last 15 months.
- Percent change is calculated as the modeled change over 15 days, based on linear regression of log-transformed SARS-CoV-2 viral RNA concentrations in wastewater. Sites with "New site" in the Percent change in the last 15 days table have the most recent data* colored gray on the map.

Percent of wastewater samples with detectable virus in the last 15 days

- This metric shows the percent of wastewater samples at each site that were positive for SARS-CoV-2 RNA over the last 15 days. It does not account for levels of SARS-CoV-2 in wastewater.
- This metric is calculated by dividing the number of samples in which SARS-CoV-2 was detected at a site by the total number of samples collected at that site over the last 15 days and multiplying by 100.
- Sites with at least one sample and no SARS-CoV-2 viral detections over the past 15 days are listed as "Non-detect" and are shown on the map as follows:
  - Sites with no samples for the current 15-day period are listed as "No recent data" and colored gray on the map.

SARS-CoV-2 concentration level

- When a site is sequenced, a smoothed, spline fit SARS-CoV-2 concentration is shown for the last 4 months, as data are available. The estimated SARS-CoV-2 concentration is shown on a log10 scale. Log10 concentrations in wastewater at a sampling site have changed over the last 4 months.
- Hover your mouse over the chart to see the smoothed SARS-CoV-2 concentration line. If a major change in laboratory methods is reported, only data since the new laboratory method was reported are shown. Sites labeled as "New site" on the data tables and the wastewater metric should be viewed with caution since they have only a few samples to generate their trends lines.

Category change in the last 15 days

- This metric shows the change in the number of sites (represented as a percent) that are in a specific metric category (for example, the % that are increasing) over the last 15 days (+100% or more) compared to the previous 7 days. In other words, it shows how many sites have been added or removed from the metric category in the past week. It is calculated by subtracting the number of sites in each metric category from the number of sites in the same category 7 days earlier and dividing by the number of sites in the same category 7 days earlier.
- If a site's category had no sites 14-7 days earlier, the category change in the last 7 days is listed as "NaN" since you cannot divide by 0.

Current map date

- Data are presented by sewershed (the geographic area contributing wastewater to a sampling location). Sampling locations may be at wastewater treatment plants or at a point in the sewer network. Sewersheds may cross county or state boundaries. This means multiple sewersheds may serve a single county, and a single sewershed may serve multiple counties. Sewersheds are referred to as "sites" on the map.

Sewershed locations

- Data are plotted in the ZIP code of the sampling location, so points on the map do not correspond exactly to sampling locations.
- All counties represented by a sampling location are highlighted when the sampling location point is selected.
- The U.S. Department of Health and Human Services (HHS) has defined 10 standard administrative regions (Regions) within EPC and CFA. Each Region includes a group of states, territories, and tribal governments. Each Region is identified by its points reported within that jurisdiction. Please note some IDC sampling locations may receive wastewater from parts of multiple counties, and some NTC sampling locations may receive wastewater from parts of counties in surrounding states.

Data subject to change

- Wastewater disease surveillance data presented are the best available data and are subject to change. These data may be incomplete for the most recent 15-day period due to processing and reporting delays. All data are provisional.

May 2022 Coverage Changes

- Beginning April 15, 2022, approximately 110 wastewater sites in 29 states began transitioning to a new wastewater testing provider. During this transition, these sites will not have recent data displayed and will be colored gray on the map. The new wastewater testing provider will begin reporting data in mid-May and data will be displayed on this page. Results for these sites are expected to be available again between mid-May and June 2022.

Data not shown

- Data from sewersheds that serve fewer than 3,000 people.
- Data from sewersheds where sampling is not frequent enough for data modeling.
- Data from facility or institution-specific sewersheds.
- Wastewater sampling is voluntary, and not all wastewater sampling sites are made anonymous using a consistent, voluntary number.
- Because SARS-CoV-2 RNA levels are not epidemic systems, the exact percent varies by location. These systems do not connect to wastewater treatment facilities. Instead, they are small systems that serve a few hundred people and are not represented in the data.
- Data from sewersheds currently being monitored but not submitted by health departments to CDC. Certain communities collect wastewater samples but do not submit their data to CDC.
- Data from sewersheds where CDC has received if there are data quality issues.

Data source

- Data displayed are derived from two sources:
  - Wastewater data submitted to CDC by state, local, and territorial (STLT) health departments participating in the National Wastewater Surveillance System (NWSS) and by commercial laboratories in a set of jurisdictions are reporting to CDC.
  - Data are reported through a CDC-managed contract for commercial testing, which is intended to supplement the geographic coverage of the STLT wastewater surveillance programs.

Laboratory methods

- SARS-CoV-2 concentrations in wastewater are measured using reverse transcription quantitative polymerase chain reaction (RT-qPCR or reverse transcription digital polymerase chain reaction (RT-dPCR). Laboratory processing and quantification methods may vary between sampling sites or, less commonly, within a sampling site over time. Since 2021, CDC has provided recommendations to improve the consistency of laboratory methods. Data are not compared across sampling locations. Instead, percent change in SARS-CoV-2 concentrations and current levels compared to past levels at the same site are provided. These metrics are more comparable across lab methods. When laboratory methods change, CDC is consulted and detected when any RT-qPCR reports for the sample were positive. Positive is defined for RT-qPCR as a Ct value less than 40 and for RT-dPCR as ≥ 3 or more positive droplets/partitions. Learn more in the Wastewater Surveillance Testing Methods page.

Data download

- [These data can be downloaded from data.cdc.gov: NWSS Public SARS-CoV-2 Wastewater Metric Data](#) and [NWSS Public SARS-CoV-2 Wastewater Sample Site Information](#).
- The [Data Dictionary for these datasets \(Publication Analytics Dictionary\)](#) is also available.
- To request detailed wastewater data, including a full time history of raw concentrations, email nwss@cdc.gov with the subject line 'NWSS public data request'. You will be required to sign a data use agreement.

Wondering what all the data mean?

CDC's [COVID Data Tracker Weekly Review](#) helps you stay up to date on interpretation of key data and trends.

How does wastewater surveillance work?

Wastewater data can show changes in transmission 4–5 days before these changes in trends are seen in clinical cases, and a single wastewater sample captures data collected from thousands to millions of individuals. Learn more: [National Wastewater Surveillance System \(NWSS\)](#).

If it looks like virus levels in wastewater are rising in my community, what should I do?

Think about wearing a [COVID-19 prevention mask](#) and follow the recommended prevention steps.

Public health officials watch for sustained increasing levels of the virus in wastewater and use these data to inform decisions and recommendations. CDC does not collect data on the use of masks and put this information together to understand the local COVID-19 situation and decide how to best respond.

How do I build NWSS in my community?

Wastewater-based disease surveillance is an exciting new tool to help communities monitor their health. Find [information on what to consider](#) when implementing a wastewater-based disease surveillance system.

Is there wastewater sampling in my community?

New sampling sites are being added over time as health departments begin sampling and reporting wastewater data to CDC. Contact your [state, tribal, local, or territorial health department](#) to learn more about wastewater surveillance. If you would like to know if wastewater surveillance is happening in your community, contact your [health department](#) or local government. At this time, CDC does not release the names of the wastewater treatment plants or zip codes where sampling sites are located. However, information on the laboratory that is conducting the wastewater sampling sites is provided.

COVID Data Tracker Weekly Review

Sign up to receive the COVID Data Tracker Weekly Review.

Email Address: Email Address Submit

WHAT'S THIS?