

New Jersey Median Sewage Sludge Quality

ARSENIC

| Year | CAT 1 ¹ (mg/kg) | CAT 2 ¹ (mg/kg) | CAT 3 ¹ (mg/kg) | CAT 4 ¹ (mg/kg) | CAT 5 ¹ (mg/kg) | Number of Samples | Percent of Samples w/ Detects (%) | STATEWIDE MEDIAN (mg/kg) |
|------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|----------------------|--|--------------------------------|
| 1983 | 2.09 | 2.00 | 2.50 | 3.05 | 3.52 | NA | NA | 2.70 |
| 1994 | 2.79 | 3.11 | 2.52 | 3.06 | 2.80 | NA | NA | 2.85 |
| 1997 | 4.19 | 4.02 | 3.33 | 4.92 | 4.77 | 1183 | 61.40 | 4.33 |
| 2001 | 4.31 | 3.59 | 3.90 | 4.70 | NA | 1003 | 43.00 | 4.40 |
| 2002 | 6.66 | 5.63 | 4.38 | 4.96 | NA | 1060 | 56.00 | 5.00 |
| 2003 | 5.08 | 4.35 | 4.14 | 5.03 | NA | 1077 | 49.10 | 4.86 |
| 2004 | 5.71 | 4.94 | 4.85 | 4.74 | NA | 1097 | 45.70 | 4.90 |
| 2005 | 6.58 | 4.86 | 4.90 | 4.91 | NA | 1094 | 48.17 | 5.00 |
| 2006 | 6.41 | 4.68 | 4.51 | 4.90 | NA | 1074 | 43.85 | 4.83 |
| 2007 | 6.41 | 4.41 | 4.82 | 5.00 | NA | 1076 | 46.38 | 5.00 |
| 2008 | 7.52 | 5.51 | 5.20 | 5.67 | NA | 1089 | 50.69 | 5.63 |
| 2009 | 4.70 | 3.59 | 4.44 | 4.77 | NA | 1079 | 51.81 | 4.60 |
| 2010 | 5.21 | 3.75 | 3.98 | 4.40 | NA | 1106 | 67.81 | 4.29 |
| 2011 | 4.37 | 3.62 | 3.28 | 4.27 | NA | 1104 | 58.33 | 3.89 |
| 2012 | 3.45 | 3.95 | 4.02 | 4.27 | NA | 1005 | 57.01 | 4.11 |
| 2013 | 4.04 | 3.69 | 4.34 | 4.53 | NA | 1024 | 66.11 | 4.35 |
| 2014 | 3.92 | 3.40 | 4.12 | 4.33 | NA | 1017 | 59.19 | 4.24 |
| 2015 | 2.83 | 2.78 | 3.07 | 3.76 | NA | 997 | 63.89 | 3.39 |
| 2016 | 3.28 | 2.92 | 3.45 | 3.99 | NA | 995 | 65.13 | 3.64 |
| 2017 | 3.75 | 3.15 | 4.08 | 4.87 | NA | 1007 | 70.21 | 4.34 |
| 2018 | 9.68 | 5.38 | 4.74 | 4.88 | NA | 1008 | 55.75 | 5.03 |
| 2019 | 7.48 | 5.42 | 3.30 | 5.45 | NA | 996 | 54.62 | 5.40 |
| 2020 | 12.65 | 6.50 | 2.97 | 5.49 | NA | 980 | 51.43 | 5.50 |

¹ Denote the SQAR reporting category as follows:

Cat 1: domestic treatment works with a permitted flow less than 0.1 MGD

Cat 2: domestic treatment works with a permitted flow of 0.1 to 0.999 MGD

Cat 3: domestic treatment works with a permitted flow from 1.0 to 4.999 MGD

Cat 4: domestic treatment works with a permitted flow equal to or greater than 5.0 MGD

Cat 5: domestic treatment works with a flow to which more than 10 percent of the permitted daily flow or the permitted daily mass loading of BOD, COD or Suspended Solids is contributed by SIUs. (This category was deleted in the 1999 readoption of the SQAR)

Notes: Due to large ranges reported for some parameters there is a considerable difference in magnitude between mean and median values. The true central tendency for the concentration is better represented by the median than by the mean value. For determining median concentrations, if analytical testing did not yield a pollutant concentration above the minimum detection level, **the pollutant concentration was assumed to be the minimum amount of pollutant that could be measured. Equating undetected data points to their minimum detection level is a conservative assumption since it tends to overestimate pollutant concentrations.** The percent of detected samples is indicated on the table.

New Jersey Median Sewage Sludge Quality

BERYLLIUM

| Year | CAT 1 ¹ (mg/kg) | CAT 2 ¹ (mg/kg) | CAT 3 ¹ (mg/kg) | CAT 4 ¹ (mg/kg) | CAT 5 ¹ (mg/kg) | Number of Samples | Percent of Samples w/ Detects (%) | STATEWIDE MEDIAN (mg/kg) |
|------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|----------------------|--|--------------------------------|
| 1983 | NA | NA | NA | NA | NA | NA | NA | NA |
| 1994 | NA | NA | NA | NA | NA | NA | NA | NA |
| 1997 | NA | NA | NA | NA | NA | NA | NA | NA |
| 2001 | 0.67 | 0.76 | 1.00 | 1.01 | NA | 1068 | 27.53 | 1.00 |
| 2002 | 1.30 | 1.11 | 0.89 | 0.91 | NA | 1086 | 28.18 | 0.93 |
| 2003 | 1.16 | 0.86 | 0.97 | 0.89 | NA | 1085 | 30.14 | 0.94 |
| 2004 | 0.97 | 0.82 | 1.04 | 1.06 | NA | 1101 | 28.16 | 1.00 |
| 2005 | 1.00 | 0.76 | 0.97 | 1.11 | NA | 1093 | 26.72 | 1.00 |
| 2006 | 0.86 | 0.77 | 0.89 | 1.13 | NA | 1089 | 29.11 | 0.98 |
| 2007 | 0.85 | 0.72 | 0.84 | 0.85 | NA | 1076 | 27.97 | 0.83 |
| 2008 | 0.96 | 0.77 | 0.80 | 0.85 | NA | 1091 | 27.31 | 0.84 |
| 2009 | 0.62 | 0.68 | 0.61 | 0.68 | NA | 1096 | 38.14 | 0.66 |
| 2010 | 0.36 | 0.26 | 0.35 | 0.54 | NA | 1119 | 63.09 | 0.49 |
| 2011 | 0.52 | 0.40 | 0.40 | 0.60 | NA | 1110 | 62.88 | 0.56 |
| 2012 | 0.46 | 0.49 | 0.58 | 0.6 | NA | 1007 | 60.58 | 0.58 |
| 2013 | 0.36 | 0.34 | 0.53 | 0.55 | NA | 1025 | 66.34 | 0.51 |
| 2014 | 0.26 | 0.37 | 0.55 | 0.50 | NA | 1017 | 71.19 | 0.48 |
| 2015 | 0.32 | 0.39 | 0.44 | 0.49 | NA | 996 | 67.37 | 0.45 |
| 2016 | 0.27 | 0.41 | 0.54 | 0.54 | NA | 997 | 60.68 | 0.49 |
| 2017 | 0.21 | 0.33 | 0.42 | 0.70 | NA | 1007 | 53.62 | 0.56 |
| 2018 | 2.00 | 0.62 | 0.77 | 0.99 | NA | 1007 | 45.58 | 0.93 |
| 2019 | 1.40 | 0.89 | 0.99 | 1.38 | NA | 999 | 41.74 | 1.10 |
| 2020 | 0.95 | 0.78 | 1.04 | 1.50 | NA | 980 | 40.82 | 1.20 |

¹ Denote the SQAR reporting category as follows:

Cat 1: domestic treatment works with a permitted flow less than 0.1 MGD

Cat 2: domestic treatment works with a permitted flow of 0.1 to 0.999 MGD

Cat 3: domestic treatment works with a permitted flow from 1.0 to 4.999 MGD

Cat 4: domestic treatment works with a permitted flow equal to or greater than 5.0 MGD

Cat 5: domestic treatment works with a flow to which more than 10 percent of the permitted daily flow or the permitted daily mass loading of BOD, COD or Suspended Solids is contributed by SIUs. (This category was deleted in the 1999 readoption of the SQAR)

Notes: Due to large ranges reported for some parameters there is a considerable difference in magnitude between mean and median values. The true central tendency for the concentration is better represented by the median than by the mean value. For determining median concentrations, if analytical testing did not yield a pollutant concentration above the minimum detection level, **the pollutant concentration was assumed to be the minimum amount of pollutant that could be measured. Equating undetected data points to their minimum detection level is a conservative assumption since it tends to overestimate pollutant concentrations.** The percent of detected samples is indicated on the table.

New Jersey Median Sewage Sludge Quality

CADMIUM

| Year | CAT 1 ¹ (mg/kg) | CAT 2 ¹ (mg/kg) | CAT 3 ¹ (mg/kg) | CAT 4 ¹ (mg/kg) | CAT 5 ¹ (mg/kg) | Number of Samples | Percent of Samples w/ Detects (%) | STATEWIDE MEDIAN (mg/kg) |
|------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|----------------------|--|--------------------------------|
| 1983 | 7.38 | 2.00 | 10.10 | 9.90 | 11.45 | NA | NA | 9.40 |
| 1994 | 6.60 | 4.90 | 4.90 | 5.68 | 6.53 | NA | NA | 5.63 |
| 1997 | 3.00 | 3.85 | 3.30 | 3.36 | 5.40 | 1185 | 65.20 | 3.50 |
| 2001 | 2.63 | 1.97 | 2.67 | 2.85 | NA | 1006 | 62.00 | 2.70 |
| 2002 | 2.25 | 1.93 | 2.29 | 2.52 | NA | 1061 | 58.70 | 2.40 |
| 2003 | 2.22 | 1.95 | 2.06 | 2.75 | NA | 1077 | 60.70 | 2.48 |
| 2004 | 2.23 | 1.83 | 1.95 | 2.53 | NA | 1098 | 55.00 | 2.29 |
| 2005 | 2.27 | 1.65 | 1.81 | 2.37 | NA | 1094 | 52.74 | 2.12 |
| 2006 | 2.20 | 1.73 | 1.68 | 2.07 | NA | 1075 | 48.84 | 1.94 |
| 2007 | 2.04 | 1.54 | 1.66 | 2.05 | NA | 1076 | 46.75 | 1.92 |
| 2008 | 3.29 | 1.50 | 1.59 | 1.91 | NA | 1088 | 48.35 | 1.84 |
| 2009 | 1.60 | 1.40 | 1.40 | 1.71 | NA | 1080 | 56.02 | 1.60 |
| 2010 | 1.16 | 0.66 | 0.75 | 1.19 | NA | 1106 | 68.17 | 1.10 |
| 2011 | 1.92 | 0.76 | 0.74 | 1.31 | NA | 1104 | 62.05 | 1.20 |
| 2012 | 1.16 | 0.91 | 0.99 | 1.28 | NA | 1007 | 64.77 | 1.18 |
| 2013 | 1.46 | 1.19 | 1.20 | 1.45 | NA | 1026 | 81.68 | 1.36 |
| 2014 | 1.33 | 1.30 | 1.30 | 1.22 | NA | 1018 | 78.78 | 1.26 |
| 2015 | 0.70 | 0.83 | 0.94 | 1.20 | NA | 997 | 76.83 | 1.04 |
| 2016 | 1.19 | 0.98 | 1.20 | 1.41 | NA | 997 | 80.64 | 1.29 |
| 2017 | 1.20 | 1.14 | 1.40 | 1.90 | NA | 1007 | 77.36 | 1.60 |
| 2018 | 2.06 | 1.55 | 1.60 | 2.00 | NA | 1009 | 67.69 | 1.80 |
| 2019 | 2.50 | 1.96 | 1.86 | 1.78 | NA | 998 | 63.03 | 1.85 |
| 2020 | 3.31 | 2.10 | 1.60 | 2.00 | NA | 981 | 56.37 | 2.00 |

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Notes: Due to large ranges reported for some parameters there is a considerable difference in magnitude between mean and median values. The true central tendency for the concentration is better represented by the median than by the mean value. For determining median concentrations, if analytical testing did not yield a pollutant concentration above the minimum detection level, **the pollutant concentration was assumed to be the minimum amount of pollutant that could be measured. Equating undetected data points to their minimum detection level is a conservative assumption since it tends to overestimate pollutant concentrations.** The percent of detected samples is indicated on the table.

New Jersey Median Sewage Sludge Quality

CHROMIUM

| Year | CAT 1 ¹ (mg/kg) | CAT 2 ¹ (mg/kg) | CAT 3 ¹ (mg/kg) | CAT 4 ¹ (mg/kg) | CAT 5 ¹ (mg/kg) | Number of Samples | Percent of Samples w/ Detects (%) | STATEWIDE MEDIAN (mg/kg) |
|------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|----------------------|--|--------------------------------|
| 1983 | 33.60 | 29.00 | 88.80 | 115.00 | 60.00 | NA | NA | 93.00 |
| 1994 | 27.00 | 23.00 | 27.00 | 39.00 | 88.00 | NA | NA | 39.00 |
| 1997 | 19.70 | 25.00 | 20.00 | 29.60 | 42.40 | 1185 | 89.30 | 26.00 |
| 2001 | 15.10 | 14.30 | 22.30 | 28.90 | NA | 1008 | 92.50 | 24.50 |
| 2002 | 13.80 | 14.80 | 21.00 | 31.00 | NA | 1061 | 93.00 | 24.80 |
| 2003 | 15.60 | 15.70 | 21.00 | 26.40 | NA | 1077 | 93.10 | 22.40 |
| 2004 | 15.80 | 16.40 | 20.00 | 26.90 | NA | 1098 | 92.20 | 22.30 |
| 2005 | 15.50 | 14.30 | 19.10 | 24.30 | NA | 1093 | 95.33 | 20.30 |
| 2006 | 15.40 | 13.00 | 18.80 | 23.80 | NA | 1076 | 95.54 | 20.20 |
| 2007 | 14.40 | 13.60 | 17.40 | 23.30 | NA | 1076 | 95.45 | 19.50 |
| 2008 | 17.60 | 16.70 | 17.60 | 23.40 | NA | 1086 | 92.91 | 20.40 |
| 2009 | 14.90 | 14.00 | 16.30 | 21.80 | NA | 1078 | 95.55 | 18.70 |
| 2010 | 16.10 | 13.80 | 16.80 | 22.80 | NA | 1106 | 97.38 | 20.20 |
| 2011 | 13.80 | 13.20 | 16.60 | 22.30 | NA | 1105 | 97.38 | 18.90 |
| 2012 | 14.50 | 13.20 | 16.70 | 21.60 | NA | 1007 | 98.51 | 18.80 |
| 2013 | 13.70 | 13.10 | 17.20 | 21.70 | NA | 1027 | 98.93 | 19.80 |
| 2014 | 14.35 | 12.45 | 16.25 | 20.90 | NA | 1018 | 98.43 | 18.95 |
| 2015 | 12.50 | 11.95 | 16.20 | 21.00 | NA | 997 | 99.00 | 19.00 |
| 2016 | 10.90 | 12.20 | 15.10 | 20.50 | NA | 997 | 98.50 | 17.90 |
| 2017 | 11.50 | 11.10 | 16.20 | 21.80 | NA | 1007 | 99.01 | 18.80 |
| 2018 | 15.75 | 13.55 | 17.45 | 22.00 | NA | 1008 | 98.02 | 19.90 |
| 2019 | 15.30 | 14.10 | 18.30 | 21.55 | NA | 999 | 97.30 | 19.60 |
| 2020 | 16.40 | 13.00 | 16.90 | 19.00 | NA | 981 | 95.82 | 17.40 |

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New Jersey Median Sewage Sludge Quality

COPPER

| Year | CAT 1 ¹ (mg/kg) | CAT 2 ¹ (mg/kg) | CAT 3 ¹ (mg/kg) | CAT 4 ¹ (mg/kg) | CAT 5 ¹ (mg/kg) | Number of Samples | Percent of Samples w/ Detects (%) | STATEWIDE MEDIAN (mg/kg) |
|------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|----------------------|--|--------------------------------|
| 1983 | 697.00 | 657.00 | 949.00 | 776.00 | 1170.00 | NA | NA | 825.00 |
| 1994 | 594.00 | 679.00 | 658.00 | 667.00 | 819.00 | NA | NA | 679.00 |
| 1997 | 524.00 | 669.00 | 663.00 | 622.00 | 832.00 | 1185 | 99.20 | 628.00 |
| 2001 | 500.00 | 538.00 | 667.00 | 527.00 | NA | 1009 | 99.80 | 552.00 |
| 2002 | 518.00 | 547.00 | 700.00 | 570.00 | NA | 1062 | 99.40 | 584.00 |
| 2003 | 496.00 | 588.00 | 582.00 | 532.00 | NA | 1077 | 99.60 | 545.00 |
| 2004 | 529.00 | 622.00 | 595.00 | 522.00 | NA | 1098 | 99.40 | 552.00 |
| 2005 | 540.00 | 579.00 | 614.00 | 499.00 | NA | 1094 | 100.00 | 537.00 |
| 2006 | 408.00 | 535.00 | 601.00 | 484.00 | NA | 1075 | 99.81 | 506.00 |
| 2007 | 547.00 | 608.00 | 602.00 | 495.00 | NA | 1076 | 99.54 | 537.00 |
| 2008 | 494.00 | 615.00 | 600.00 | 523.00 | NA | 1087 | 99.17 | 551.00 |
| 2009 | 519.00 | 580.00 | 587.00 | 481.00 | NA | 1080 | 99.54 | 528.00 |
| 2010 | 514.00 | 604.00 | 544.00 | 501.00 | NA | 1106 | 99.73 | 521.00 |
| 2011 | 551.00 | 557.00 | 547.00 | 489.00 | NA | 1106 | 99.82 | 514.00 |
| 2012 | 590.00 | 664.00 | 595.00 | 505.00 | NA | 1007 | 99.70 | 550.00 |
| 2013 | 585.00 | 615.00 | 630.00 | 519.00 | NA | 1026 | 99.90 | 555.00 |
| 2014 | 574.00 | 571.50 | 601.50 | 496.50 | NA | 1018 | 100.00 | 522.50 |
| 2015 | 527.50 | 567.00 | 576.00 | 496.50 | NA | 997 | 100.00 | 523.00 |
| 2016 | 424.50 | 513.00 | 566.00 | 473.00 | NA | 997 | 99.90 | 489.00 |
| 2017 | 381.50 | 531.00 | 543.00 | 465.50 | NA | 1008 | 100.00 | 480.00 |
| 2018 | 610.00 | 537.50 | 532.00 | 406.00 | NA | 1009 | 100.00 | 453.00 |
| 2019 | 487.00 | 534.00 | 316.00 | 429.50 | NA | 999 | 99.70 | 454.00 |
| 2020 | 523.00 | 580.00 | 323.00 | 463.00 | NA | 981 | 99.59 | 490.00 |

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New Jersey Median Sewage Sludge Quality

LEAD

| Year | CAT 1 ¹ (mg/kg) | CAT 2 ¹ (mg/kg) | CAT 3 ¹ (mg/kg) | CAT 4 ¹ (mg/kg) | CAT 5 ¹ (mg/kg) | Number of Samples | Percent of Samples w/ Detects (%) | STATEWIDE MEDIAN (mg/kg) |
|------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|----------------------|--|--------------------------------|
| 1983 | 127.00 | 122.00 | 195.00 | 196.00 | 411.00 | NA | NA | 210.00 |
| 1994 | 100.00 | 74.00 | 86.00 | 108.00 | 137.00 | NA | NA | 100.00 |
| 1997 | 62.00 | 75.80 | 57.10 | 64.50 | 82.00 | 1186 | 84.80 | 65.20 |
| 2001 | 40.20 | 25.30 | 44.20 | 53.80 | NA | 1009 | 93.00 | 48.50 |
| 2002 | 38.50 | 27.70 | 46.90 | 58.90 | NA | 1061 | 91.30 | 52.20 |
| 2003 | 30.20 | 26.80 | 36.80 | 54.40 | NA | 1077 | 92.00 | 43.70 |
| 2004 | 29.40 | 27.60 | 34.50 | 51.70 | NA | 1098 | 91.40 | 42.20 |
| 2005 | 23.70 | 26.00 | 34.70 | 46.90 | NA | 1094 | 93.51 | 38.60 |
| 2006 | 17.20 | 21.10 | 30.30 | 45.40 | NA | 1075 | 92.00 | 36.00 |
| 2007 | 18.00 | 23.70 | 29.40 | 43.70 | NA | 1076 | 92.19 | 35.10 |
| 2008 | 31.40 | 25.00 | 31.20 | 42.90 | NA | 1088 | 90.44 | 37.30 |
| 2009 | 23.10 | 22.10 | 30.20 | 42.70 | NA | 1081 | 93.52 | 34.70 |
| 2010 | 20.40 | 21.00 | 26.80 | 41.20 | NA | 1106 | 96.47 | 33.20 |
| 2011 | 21.30 | 21.80 | 27.80 | 42.70 | NA | 1106 | 96.47 | 34.20 |
| 2012 | 19.80 | 22.70 | 26.60 | 39.60 | NA | 1007 | 97.22 | 34.20 |
| 2013 | 17.70 | 21.70 | 26.10 | 39.90 | NA | 1027 | 96.79 | 33.10 |
| 2014 | 15.05 | 19.40 | 25.90 | 38.95 | NA | 1017 | 95.97 | 33.10 |
| 2015 | 12.60 | 18.60 | 24.90 | 38.50 | NA | 997 | 97.89 | 31.10 |
| 2016 | 12.35 | 15.70 | 24.50 | 36.50 | NA | 996 | 95.28 | 29.00 |
| 2017 | 8.93 | 13.60 | 22.30 | 38.50 | NA | 1007 | 95.73 | 28.30 |
| 2018 | 18.60 | 19.00 | 26.30 | 38.70 | NA | 1009 | 95.64 | 30.60 |
| 2019 | 19.20 | 20.60 | 21.90 | 33.25 | NA | 999 | 91.39 | 27.90 |
| 2020 | 17.40 | 21.50 | 25.00 | 32.40 | NA | 981 | 92.15 | 28.10 |

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New Jersey Median Sewage Sludge Quality

MERCURY

| Year | CAT 1 ¹ (mg/kg) | CAT 2 ¹ (mg/kg) | CAT 3 ¹ (mg/kg) | CAT 4 ¹ (mg/kg) | CAT 5 ¹ (mg/kg) | Number of Samples | Percent of Samples w/ Detects (%) | STATEWIDE MEDIAN (mg/kg) |
|------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|----------------------|--|--------------------------------|
| 1983 | 1.30 | 2.90 | 5.00 | 3.25 | 3.77 | NA | NA | 3.60 |
| 1994 | 2.08 | 2.24 | 2.50 | 2.40 | 2.29 | NA | NA | 2.34 |
| 1997 | 1.74 | 1.96 | 2.20 | 1.65 | 2.89 | 1185 | 78.00 | 1.93 |
| 2001 | 1.04 | 1.23 | 1.88 | 1.74 | NA | 1007 | 91.00 | 1.66 |
| 2002 | 1.10 | 1.22 | 1.88 | 1.95 | NA | 1062 | 90.20 | 1.80 |
| 2003 | 0.79 | 1.19 | 1.47 | 1.62 | NA | 1077 | 88.30 | 1.47 |
| 2004 | 0.74 | 1.08 | 1.35 | 1.48 | NA | 1098 | 87.90 | 1.31 |
| 2005 | 0.71 | 1.02 | 1.41 | 1.16 | NA | 1094 | 86.29 | 1.13 |
| 2006 | 0.92 | 1.05 | 1.45 | 1.41 | NA | 1075 | 84.65 | 1.28 |
| 2007 | 0.99 | 1.04 | 1.24 | 1.28 | NA | 1076 | 82.53 | 1.22 |
| 2008 | 1.20 | 1.32 | 1.29 | 1.30 | NA | 1087 | 77.83 | 1.28 |
| 2009 | 1.00 | 1.10 | 1.10 | 1.10 | NA | 1081 | 77.98 | 1.10 |
| 2010 | 0.98 | 0.97 | 0.97 | 0.94 | NA | 1107 | 80.40 | 0.94 |
| 2011 | 1.17 | 0.71 | 0.86 | 0.93 | NA | 1105 | 75.29 | 0.92 |
| 2012 | 0.53 | 0.72 | 0.88 | 0.88 | NA | 1005 | 77.71 | 0.84 |
| 2013 | 0.63 | 0.72 | 0.85 | 0.86 | NA | 1025 | 84.98 | 0.82 |
| 2014 | 0.47 | 0.64 | 0.82 | 0.71 | NA | 1016 | 88.29 | 0.71 |
| 2015 | 0.40 | 0.64 | 0.69 | 0.70 | NA | 997 | 86.76 | 0.69 |
| 2016 | 0.39 | 0.53 | 0.71 | 0.68 | NA | 995 | 86.63 | 0.66 |
| 2017 | 0.30 | 0.59 | 0.68 | 0.63 | NA | 1005 | 79.50 | 0.63 |
| 2018 | 1.10 | 0.61 | 0.79 | 0.68 | NA | 1008 | 73.61 | 0.71 |
| 2019 | 1.70 | 0.85 | 0.72 | 0.64 | NA | 998 | 68.64 | 0.69 |
| 2020 | 1.12 | 0.85 | 0.67 | 0.67 | NA | 980 | 68.57 | 0.68 |

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Cat 2: domestic treatment works with a permitted flow of 0.1 to 0.999 MGD

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Cat 4: domestic treatment works with a permitted flow equal to or greater than 5.0 MGD

Cat 5: domestic treatment works with a flow to which more than 10 percent of the permitted daily flow or the permitted daily mass loading of BOD, COD or Suspended Solids is contributed by SIUs. (This category was deleted in the 1999 readoption of the SQAR)

Notes: Due to large ranges reported for some parameters there is a considerable difference in magnitude between mean and median values. The true central tendency for the concentration is better represented by the median than by the mean value. For determining median concentrations, if analytical testing did not yield a pollutant concentration above the minimum detection level, **the pollutant concentration was assumed to be the minimum amount of pollutant that could be measured. Equating undetected data points to their minimum detection level is a conservative assumption since it tends to overestimate pollutant concentrations.** The percent of detected samples is indicated on the table.

New Jersey Median Sewage Sludge Quality

MOLYBDENUM

| Year | CAT 1 ¹ (mg/kg) | CAT 2 ¹ (mg/kg) | CAT 3 ¹ (mg/kg) | CAT 4 ¹ (mg/kg) | CAT 5 ¹ (mg/kg) | Number of Samples | Percent of Samples w/ Detects (%) | STATEWIDE MEDIAN (mg/kg) |
|------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|----------------------|--|--------------------------------|
| 1983 | NA | NA | NA | NA | NA | NA | NA | NA |
| 1994 | 15.30 | 20.00 | 12.20 | 14.90 | 15.20 | NA | NA | 15.03 |
| 1997 | 12.80 | 20.80 | 12.00 | 9.60 | 16.30 | 1183 | 60.50 | 12.60 |
| 2001 | 18.70 | 8.52 | 11.55 | 10.86 | NA | 1007 | 62.00 | 11.10 |
| 2002 | 16.50 | 8.71 | 12.60 | 11.33 | NA | 1059 | 67.30 | 11.50 |
| 2003 | 14.05 | 8.35 | 12.10 | 11.00 | NA | 1076 | 64.00 | 11.00 |
| 2004 | 11.40 | 8.29 | 11.60 | 11.00 | NA | 1098 | 62.00 | 11.00 |
| 2005 | 9.41 | 7.64 | 10.60 | 9.49 | NA | 1093 | 60.11 | 9.44 |
| 2006 | 9.09 | 7.27 | 9.30 | 9.20 | NA | 1074 | 59.31 | 9.08 |
| 2007 | 9.64 | 6.61 | 8.97 | 9.02 | NA | 1076 | 58.27 | 8.85 |
| 2008 | 13.75 | 6.90 | 9.32 | 9.09 | NA | 1089 | 53.26 | 9.05 |
| 2009 | 7.20 | 6.60 | 8.07 | 7.80 | NA | 1080 | 62.04 | 7.62 |
| 2010 | 6.15 | 5.50 | 6.57 | 6.69 | NA | 1106 | 82.64 | 6.32 |
| 2011 | 6.48 | 5.71 | 6.07 | 6.22 | NA | 1105 | 82.35 | 6.15 |
| 2012 | 6.01 | 6.13 | 7.28 | 6.91 | NA | 1007 | 85.30 | 6.85 |
| 2013 | 5.90 | 5.83 | 7.16 | 6.52 | NA | 1025 | 86.44 | 6.54 |
| 2014 | 5.49 | 5.37 | 6.90 | 8.46 | NA | 1017 | 84.27 | 6.50 |
| 2015 | 6.16 | 5.59 | 6.48 | 7.40 | NA | 996 | 87.75 | 6.95 |
| 2016 | 5.18 | 4.82 | 6.25 | 6.80 | NA | 997 | 89.17 | 6.33 |
| 2017 | 5.10 | 5.28 | 6.46 | 7.24 | NA | 1008 | 87.00 | 6.84 |
| 2018 | 9.20 | 6.43 | 6.84 | 7.26 | NA | 1009 | 80.28 | 7.10 |
| 2019 | 9.72 | 6.90 | 6.80 | 7.00 | NA | 999 | 76.38 | 7.00 |
| 2020 | 8.98 | 6.73 | 7.10 | 7.13 | NA | 980 | 75.10 | 7.20 |

¹ Denote the SQAR reporting category as follows:

Cat 1: domestic treatment works with a permitted flow less than 0.1 MGD

Cat 2: domestic treatment works with a permitted flow of 0.1 to 0.999 MGD

Cat 3: domestic treatment works with a permitted flow from 1.0 to 4.999 MGD

Cat 4: domestic treatment works with a permitted flow equal to or greater than 5.0 MGD

Cat 5: domestic treatment works with a flow to which more than 10 percent of the permitted daily flow or the permitted daily mass loading of BOD, COD or Suspended Solids is contributed by SIUs. (This category was deleted in the 1999 readoption of the SQAR)

Notes: Due to large ranges reported for some parameters there is a considerable difference in magnitude between mean and median values. The true central tendency for the concentration is better represented by the median than by the mean value. For determining median concentrations, if analytical testing did not yield a pollutant concentration above the minimum detection level, **the pollutant concentration was assumed to be the minimum amount of pollutant that could be measured. Equating undetected data points to their minimum detection level is a conservative assumption since it tends to overestimate pollutant concentrations.** The percent of detected samples is indicated on the table.

New Jersey Median Sewage Sludge Quality

NICKEL

| Year | CAT 1 ¹ (mg/kg) | CAT 2 ¹ (mg/kg) | CAT 3 ¹ (mg/kg) | CAT 4 ¹ (mg/kg) | CAT 5 ¹ (mg/kg) | Number of Samples | Percent of Samples w/ Detects (%) | STATEWIDE MEDIAN (mg/kg) |
|------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|----------------------|--|--------------------------------|
| 1983 | 29.50 | 34.00 | 49.50 | 43.20 | 90.00 | NA | NA | 45.80 |
| 1994 | 31.00 | 26.00 | 26.00 | 30.00 | 48.00 | NA | NA | 31.00 |
| 1997 | 18.00 | 27.20 | 23.20 | 24.10 | 33.00 | 1185 | 86.50 | 23.40 |
| 2001 | 15.20 | 12.20 | 18.90 | 21.40 | NA | 1009 | 92.00 | 18.70 |
| 2002 | 15.90 | 12.70 | 19.20 | 22.10 | NA | 1061 | 92.00 | 19.30 |
| 2003 | 16.30 | 13.20 | 17.50 | 22.50 | NA | 1077 | 91.40 | 19.10 |
| 2004 | 14.80 | 13.70 | 17.60 | 21.00 | NA | 1098 | 89.00 | 18.10 |
| 2005 | 14.80 | 13.50 | 15.20 | 17.30 | NA | 1094 | 88.30 | 16.00 |
| 2006 | 14.30 | 11.70 | 14.40 | 17.60 | NA | 1075 | 91.53 | 15.20 |
| 2007 | 15.10 | 13.00 | 14.70 | 17.00 | NA | 1076 | 93.59 | 15.80 |
| 2008 | 19.50 | 13.50 | 14.70 | 17.50 | NA | 1088 | 91.54 | 16.40 |
| 2009 | 14.20 | 13.20 | 15.10 | 17.70 | NA | 1081 | 95.19 | 15.50 |
| 2010 | 15.80 | 13.30 | 14.80 | 17.40 | NA | 1106 | 95.30 | 16.10 |
| 2011 | 14.70 | 12.50 | 14.80 | 17.70 | NA | 1105 | 94.75 | 16.00 |
| 2012 | 15.70 | 13.10 | 14.50 | 16.50 | NA | 1007 | 96.92 | 15.70 |
| 2013 | 13.60 | 12.60 | 15.70 | 17.30 | NA | 1027 | 97.47 | 16.10 |
| 2014 | 13.20 | 12.55 | 14.70 | 17.10 | NA | 1018 | 97.25 | 15.80 |
| 2015 | 11.30 | 12.25 | 13.80 | 16.95 | NA | 997 | 98.29 | 15.20 |
| 2016 | 9.90 | 9.69 | 13.05 | 15.80 | NA | 997 | 97.69 | 13.90 |
| 2017 | 9.78 | 11.00 | 12.70 | 16.20 | NA | 1007 | 98.01 | 14.50 |
| 2018 | 14.35 | 13.00 | 14.40 | 15.30 | NA | 1009 | 96.43 | 14.80 |
| 2019 | 14.30 | 12.80 | 14.90 | 15.00 | NA | 999 | 92.39 | 14.70 |
| 2020 | 15.45 | 11.00 | 13.50 | 14.30 | NA | 981 | 91.54 | 13.90 |

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Cat 1: domestic treatment works with a permitted flow less than 0.1 MGD

Cat 2: domestic treatment works with a permitted flow of 0.1 to 0.999 MGD

Cat 3: domestic treatment works with a permitted flow from 1.0 to 4.999 MGD

Cat 4: domestic treatment works with a permitted flow equal to or greater than 5.0 MGD

Cat 5: domestic treatment works with a flow to which more than 10 percent of the permitted daily flow or the permitted daily mass loading of BOD, COD or Suspended Solids is contributed by SIUs. (This category was deleted in the 1999 readoption of the SQAR)

Notes: Due to large ranges reported for some parameters there is a considerable difference in magnitude between mean and median values. The true central tendency for the concentration is better represented by the median than by the mean value. For determining median concentrations, if analytical testing did not yield a pollutant concentration above the minimum detection level, **the pollutant concentration was assumed to be the minimum amount of pollutant that could be measured. Equating undetected data points to their minimum detection level is a conservative assumption since it tends to overestimate pollutant concentrations.** The percent of detected samples is indicated on the table.

New Jersey Median Sewage Sludge Quality

SELENIUM

| Year | CAT 1 ¹ (mg/kg) | CAT 2 ¹ (mg/kg) | CAT 3 ¹ (mg/kg) | CAT 4 ¹ (mg/kg) | CAT 5 ¹ (mg/kg) | Number of Samples | Percent of Samples w/ Detects (%) | STATEWIDE MEDIAN (mg/kg) |
|------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|----------------------|--|--------------------------------|
| 1983 | NA | NA | NA | NA | NA | NA | NA | NA |
| 1994 | 2.38 | 2.70 | 2.40 | 1.74 | 1.30 | NA | NA | 2.07 |
| 1997 | 4.80 | 4.83 | 3.08 | 5.74 | 5.78 | 1184 | 66.20 | 4.91 |
| 2001 | 7.38 | 6.11 | 6.92 | 7.27 | NA | 1007 | 43.00 | 7.02 |
| 2002 | 10.08 | 6.81 | 7.72 | 6.59 | NA | 1060 | 52.00 | 7.10 |
| 2003 | 9.66 | 6.76 | 7.28 | 6.91 | NA | 1077 | 48.60 | 7.11 |
| 2004 | 9.48 | 7.38 | 8.47 | 7.47 | NA | 1098 | 43.40 | 8.00 |
| 2005 | 10.30 | 7.41 | 8.32 | 7.79 | NA | 1093 | 38.70 | 8.10 |
| 2006 | 10.00 | 7.08 | 7.16 | 7.91 | NA | 1075 | 37.12 | 7.90 |
| 2007 | 10.00 | 6.61 | 8.08 | 8.13 | NA | 1076 | 36.90 | 8.08 |
| 2008 | 13.85 | 7.06 | 8.21 | 8.72 | NA | 1088 | 40.72 | 8.68 |
| 2009 | 9.61 | 7.75 | 7.50 | 7.14 | NA | 1079 | 45.13 | 7.49 |
| 2010 | 7.29 | 6.10 | 4.58 | 4.43 | NA | 1105 | 51.49 | 4.85 |
| 2011 | 7.78 | 4.84 | 4.61 | 4.20 | NA | 1104 | 42.66 | 4.61 |
| 2012 | 7.03 | 7.62 | 5.68 | 5.27 | NA | 1007 | 59.48 | 5.59 |
| 2013 | 9.15 | 7.70 | 5.87 | 5.20 | NA | 1026 | 58.58 | 5.70 |
| 2014 | 6.80 | 6.32 | 7.00 | 5.83 | NA | 1016 | 53.74 | 6.19 |
| 2015 | 7.19 | 6.03 | 6.43 | 5.85 | NA | 997 | 49.55 | 6.10 |
| 2016 | 8.10 | 6.55 | 5.74 | 6.11 | NA | 996 | 72.09 | 6.09 |
| 2017 | 6.96 | 5.89 | 6.10 | 6.13 | NA | 1007 | 70.31 | 6.12 |
| 2018 | 13.35 | 7.34 | 6.90 | 5.90 | NA | 1009 | 53.52 | 6.65 |
| 2019 | 14.20 | 9.47 | 8.40 | 7.04 | NA | 999 | 43.24 | 7.51 |
| 2020 | 12.50 | 9.13 | 7.60 | 6.90 | NA | 981 | 48.42 | 7.70 |

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Cat 3: domestic treatment works with a permitted flow from 1.0 to 4.999 MGD

Cat 4: domestic treatment works with a permitted flow equal to or greater than 5.0 MGD

Cat 5: domestic treatment works with a flow to which more than 10 percent of the permitted daily flow or the permitted daily mass loading of BOD, COD or Suspended Solids is contributed by SIUs. (This category was deleted in the 1999 readoption of the SQAR)

Notes: Due to large ranges reported for some parameters there is a considerable difference in magnitude between mean and median values. The true central tendency for the concentration is better represented by the median than by the mean value. For determining median concentrations, if analytical testing did not yield a pollutant concentration above the minimum detection level, **the pollutant concentration was assumed to be the minimum amount of pollutant that could be measured. Equating undetected data points to their minimum detection level is a conservative assumption since it tends to overestimate pollutant concentrations.** The percent of detected samples is indicated on the table.

New Jersey Median Sewage Sludge Quality

ZINC

| Year | CAT 1 ¹ (mg/kg) | CAT 2 ¹ (mg/kg) | CAT 3 ¹ (mg/kg) | CAT 4 ¹ (mg/kg) | CAT 5 ¹ (mg/kg) | Number of Samples | Percent of Samples w/ Detects (%) | STATEWIDE MEDIAN (mg/kg) |
|------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|----------------------|--|--------------------------------|
| 1983 | 803.00 | 825.00 | 1200.00 | 1010.00 | 2300.00 | NA | NA | 1110.00 |
| 1994 | 904.00 | 684.00 | 738.00 | 846.00 | 999.00 | NA | NA | 826.00 |
| 1997 | 674.00 | 666.00 | 740.00 | 936.00 | 1000.00 | 1185 | 98.90 | 810.00 |
| 2001 | 746.00 | 574.00 | 785.00 | 902.00 | NA | 1007 | 99.80 | 832.00 |
| 2002 | 836.00 | 630.00 | 737.00 | 1015.00 | NA | 1062 | 99.30 | 870.00 |
| 2003 | 702.00 | 705.00 | 678.00 | 936.00 | NA | 1077 | 99.99 | 820.00 |
| 2004 | 754.00 | 723.00 | 702.00 | 937.00 | NA | 1098 | 100.00 | 832.00 |
| 2005 | 848.00 | 613.00 | 677.00 | 897.00 | NA | 1094 | 99.91 | 819.00 |
| 2006 | 676.00 | 653.00 | 723.00 | 906.00 | NA | 1075 | 99.91 | 808.00 |
| 2007 | 691.00 | 588.00 | 783.00 | 898.00 | NA | 1076 | 100.00 | 822.00 |
| 2008 | 697.00 | 689.00 | 778.00 | 860.00 | NA | 1087 | 99.63 | 792.00 |
| 2009 | 712.00 | 681.00 | 792.00 | 810.00 | NA | 1080 | 99.81 | 780.00 |
| 2010 | 712.00 | 647.00 | 768.00 | 813.00 | NA | 1107 | 99.82 | 784.00 |
| 2011 | 678.00 | 670.00 | 742.00 | 806.00 | NA | 1106 | 99.90 | 754.00 |
| 2012 | 708.00 | 637.00 | 743.00 | 851.00 | NA | 1007 | 99.80 | 801.00 |
| 2013 | 666.00 | 638.00 | 785.00 | 843.00 | NA | 1027 | 100.00 | 799.00 |
| 2014 | 700.50 | 644.00 | 672.00 | 805.00 | NA | 1018 | 100.00 | 760.00 |
| 2015 | 628.00 | 592.50 | 680.00 | 801.50 | NA | 997 | 100.00 | 751.00 |
| 2016 | 617.50 | 559.00 | 641.00 | 805.00 | NA | 995 | 99.80 | 733.00 |
| 2017 | 515.50 | 530.00 | 663.00 | 803.00 | NA | 1008 | 100.00 | 713.50 |
| 2018 | 548.00 | 576.00 | 682.00 | 784.00 | NA | 1009 | 99.90 | 746.00 |
| 2019 | 568.50 | 618.00 | 683.00 | 808.50 | NA | 999 | 99.80 | 751.00 |
| 2020 | 630.00 | 600.00 | 676.00 | 897.00 | NA | 981 | 99.80 | 818.00 |

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Cat 2: domestic treatment works with a permitted flow of 0.1 to 0.999 MGD

Cat 3: domestic treatment works with a permitted flow from 1.0 to 4.999 MGD

Cat 4: domestic treatment works with a permitted flow equal to or greater than 5.0 MGD

Cat 5: domestic treatment works with a flow to which more than 10 percent of the permitted daily flow or the permitted daily mass loading of BOD, COD or Suspended Solids is contributed by SIUs. (This category was deleted in the 1999 readoption of the SQAR)

Notes: Due to large ranges reported for some parameters there is a considerable difference in magnitude between mean and median values. The true central tendency for the concentration is better represented by the median than by the mean value. For determining median concentrations, if analytical testing did not yield a pollutant concentration above the minimum detection level, **the pollutant concentration was assumed to be the minimum amount of pollutant that could be measured. Equating undetected data points to their minimum detection level is a conservative assumption since it tends to overestimate pollutant concentrations.** The percent of detected samples is indicated on the table.