

# DASHBOARD

## Wisconsin State Biosolids Statistics

Data Quality & Methods	2018	explanations & sources
<p><b>Quality &amp; Confidence in this state's data:</b></p> <p>Data sources &amp; methods:</p> <p>State biosolids included in 2018 EPA ECHO data</p>	<p><b>HIGH</b></p> <p><i>Data are from the WI DNR database, into which annual data are entered from biosolids reporting from WRRFs. NBDP analyzed &amp; compiled data.</i></p> <p>N/A Wisconsin is delegated; no 2018 ECHO data exist.</p>	<p>ranking by survey team based on information provided in survey (options: High, Moderate, Low, None)</p> <p><a href="https://echo.epa.gov/facilities/facility-search?mediaSelected=bioAnnual">https://echo.epa.gov/facilities/facility-search?mediaSelected=bioAnnual</a></p>
<p><b>Demographics &amp; Wastewater</b></p> <p>State population:</p> <p>Total land area in state (acres):</p> <p>Population density (persons/square mile):</p> <p>Total number of WRRFs reported in state survey:</p> <p>total number of WRRFs permitted/reported elsewhere:</p> <p>number of WRRFs in EPA ECHO reports for 2018:</p> <p><b>Average population served per WRRF:</b></p> <p><b>Average wastewater flow statewide (MGD, NBDP):</b></p> <p>avg.wastewater flow statewide (MGD, Seiple):</p> <p><b>Number of WRRFs that treat &gt;75% of state flow:</b></p> <p><b>% of population served by on-site (septic) systems:</b></p> <p><b>Biosolids used or disposed / person in 2018 (lbs):</b></p>	<p>5,813,568</p> <p>34,661,120</p> <p>107.3</p> <p>487</p> <p>589</p> <p>0</p> <p><b>6,317</b></p> <p><b>613</b></p> <p>649</p> <p><b>27</b></p> <p><b>36%</b></p> <p><b>46</b></p> <p>Wisconsin is delegated; no 2018 ECHO data exist.</p>	<p>U.S. Census estimate for July 1, 2018 <a href="https://www.census.gov/newsroom/press-kits/2018/pop-estimates-national-state.html">https://www.census.gov/newsroom/press-kits/2018/pop-estimates-national-state.html</a></p> <p>calculated</p> <p>NBDP estimate based on WI DNR data Seiple et al., 2020; state experts, etc. <a href="https://echo.epa.gov/facilities/facility-search?mediaSelected=bioAnnual">https://echo.epa.gov/facilities/facility-search?mediaSelected=bioAnnual</a></p> <p>calculated</p> <p>NBDP estimate based on WI DNR data Seiple et al., 2020 <a href="https://doi.org/10.1016/j.jenvman.2020.110852">https://doi.org/10.1016/j.jenvman.2020.110852</a></p> <p>Seiple et al., 2020 <a href="https://doi.org/10.1016/j.jenvman.2020.110853">https://doi.org/10.1016/j.jenvman.2020.110853</a></p> <p>NBDP estimate, consistent with 2004 data</p> <p>calculated</p>
<p><b>Biosolids Application</b></p> <p>Agricultural land cropland (acres):</p> <p><b>% of state area in cropland:</b></p> <p>Number of farms with that cropland:</p> <p><b>% cropland to which biosolids were applied:</b></p> <p><b>Application rate if all state biosolids were applied to cropland (dry U.S. tons/ac.):</b></p> <p><b>% cropland needed if all state biosolids were applied at typical rate (~3 dt/ac):</b></p>	<p>10,085,021</p> <p><b>29%</b></p> <p>56,590</p> <p><b>no data</b></p> <p><b>0.01</b></p> <p><b>0.4%</b></p>	<p><a href="https://quickstats.nass.usda.gov/results/0CR8AD84-6032-3776-6R8-624DB8825822">https://quickstats.nass.usda.gov/results/0CR8AD84-6032-3776-6R8-624DB8825822</a></p> <p>calculated</p> <p><a href="https://quickstats.nass.usda.gov/results/F56563D1-C9CD-30FE-9774-2F91CF6649FC">https://quickstats.nass.usda.gov/results/F56563D1-C9CD-30FE-9774-2F91CF6649FC</a></p> <p>calculated</p> <p>calculated</p> <p>calculated</p>
<p><b>Nutrient Sources - Comparison</b></p> <p>Nitrogen (N) in all this state's biosolids (metric tonnes, 2018):</p> <p>N in this state's animal manures (metric tonnes):</p> <p>N in this state's purchased fertilizer (metric tonnes, 2011):</p> <p><b>If all state's biosolids applied, what % of state's applied N would come from biosolids?</b></p> <p>Phosphorus (P) in this state's biosolids (metric tonnes, 2018):</p>	<p>6,370</p> <p>191,761</p> <p>283,808</p> <p><b>1.3%</b></p> <p>2,654</p>	<p>calculated assuming avg. 4.8% biosolids N <a href="https://www.epa.gov/nutrient-policy/data/estimated-animal-agriculture-nitrogen-and-phosphorus-manure">https://www.epa.gov/nutrient-policy/data/estimated-animal-agriculture-nitrogen-and-phosphorus-manure</a></p> <p><a href="https://www.epa.gov/nutrient-policy/data/commercial-fertilizer-purchased">https://www.epa.gov/nutrient-policy/data/commercial-fertilizer-purchased</a></p> <p>calculated</p> <p>calculated assuming avg. 2% biosolids P</p>

<p>P in this state's animal manures (metric tonnes):</p> <p>P in this state's purchased fertilizer (metric tonnes, 2011):</p> <p><b>If all state's biosolids applied, what % of state's applied P would come from biosolids?</b></p>	<p>42,098</p> <p>35,052</p> <p><b>3.3%</b></p>	<p><a href="https://www.epa.gov/nutrient-policy-data/estimated-animal-agriculture-nitrogen-and-phosphorus-manure">https://www.epa.gov/nutrient-policy-data/estimated-animal-agriculture-nitrogen-and-phosphorus-manure</a></p> <p><a href="https://www.epa.gov/nutrient-policy-data/commercial-fertilizer-purchased">https://www.epa.gov/nutrient-policy-data/commercial-fertilizer-purchased</a></p> <p>calculated</p>
<p><b>State Regulatory Involvement</b></p> <p><b>Biosolids oversight agency / division:</b></p> <p>Permitting.... of biosolids programs:  ...of land application sites:  FTEs: state biosolids regulatory program:</p> <p><b>Biosolids program FTEs per million population:</b></p> <p><b>Enforcement: Inspections of biosolids facilities &amp; field sites in 2018:</b></p> <p><b>Formal violations issued:</b></p> <p><b>Amount of state regulations beyond Part 503:</b></p> <p><b>Amount of state regulation of nutrient management &amp; phosphorus:</b></p> <p><b>Accessibility of biosolids data to public:</b></p> <p><b>State encouragement of biosolids recycling to soils:</b></p> <p>Voluntary additional protections by land appliers known &amp; reported by state coordinator:</p>	<p><b>WI Dept. of Natural Resources, Water Quality Program</b>  through WWTP's WPDES permit &amp; requirements for treatment processes &amp; land application sites</p> <p>6</p> <p><b>1.03</b></p> <p><b>no data</b></p> <p><b>no data</b></p> <p><b>Moderate</b></p> <p><b>Moderate</b></p> <p><b>Low</b></p> <p><b>Moderately High</b></p> <p>Low</p>	<p>NBDP estimate based on WI DNR data calculated</p> <p>no survey response from WI DNR</p> <p>no survey response from WI DNR</p> <p>rankings by survey team based on information provided in survey (options: High, Moderate, Low, None)</p>
<p><b>Trends</b></p> <p><b>New land application activity, 2018 - new permits &amp; acreage, acres applied:</b>  acres applied in 2018:</p> <p><b>Local regulations &amp; their impacts?:</b>  details...</p> <p><b>Legislative &amp; state regulatory actions in 2018 &amp; their impacts?:</b>  details...</p> <p><b>Biosolids beneficial use increasing... ..in 2018?:</b>  ....in 2020?:  details...</p>	<p><b>Moderate</b></p> <p>no data</p> <p><b>Some</b></p> <p><b>Some</b></p> <p><b>no data</b></p> <p><b>no data</b></p>	<p>rankings by survey team based on information provided in survey (options: High, Moderate, Low, None)... With quotes of survey responses by state expert(s)</p> <p>no survey response from WI DNR</p> <p>no survey response from WI DNR</p>
<p><b>Changes in Biosolids Use &amp; Disposal, 2004 - 2018</b></p> <p><b>Change* in solids reported used or disposed (in units used by state):</b></p> <p><b>Beneficial Use - percentage point increase or decrease (-):</b></p> <p><b>Landfill &amp; surface disposal - % point increase or decrease (-):</b></p> <p><b>Incineration - percentage point increase or decrease (-):</b></p> <p><b>Class A - percentage point increase or decrease (-):</b></p> <p><b>Class B - percentage point increase or decrease (-):</b></p> <p><b>No class or not known - percentage point increase or decrease (-)</b></p>	<p>(30,404) dry metric tons</p> <p>2%</p> <p>-1%</p> <p>-1%</p> <p>8%</p> <p>-7%</p> <p>-2%</p>	<p>*Change may be due to population increase/decrease, change in treatment at a large WWTP, and/or different systems of data tracking and reporting.</p> <p>calculated comparing these 2018 data to 2004 data compiled by the same survey team (NEBRA, 2007)</p>