



# STATE BIOSOLIDS SURVEY

2018 data  
conducted 2020-2021  
biosolidsdata.org

## Arkansas

### Infrastructure & Wastewater

	2004 Data	2018 Data	
<b>Total Number of WWTPs:</b>	<b>41 (survey), 350 CWNS</b>	<b>54</b>	
<b>WWTP &amp; Biosolids Infrastructure Totals</b>			
Number of Separate Preparers (in- or out-of-state, receiving solids from your state):	1	0	-----
Total number of your state's WWTPs sending to those Separate Preparers:	2	0	-----
Number of operating sludge incinerators in your state (total):	2	0	-----
Fluidized bed:	no data	0	-----
Multiple hearth:	no data	0	-----
Number of Part 258 landfills in your state accepting sewage sludge:	data not requested for 2004	several	-----
Number of WWTPs in your state with industrial pre-treatment programs:	data not requested for 2004	24	-----
Number of WWTPs in your state with <i>sludge</i> lagoons:	data not requested for 2004	some for sludge, many for wastewater	-----
<b>Wastewater Flow Totals</b>			
Total statewide average daily wastewater flow (MGD):	data not requested for 2004	230	-----
Total statewide WWTP <i>design</i> capacity for wastewater flow (MGD):	data not requested for 2004	no data	-----
Total statewide average daily <i>dry weather</i> flow (MGD):	data not requested for 2004	no data	-----
<b>Other Totals</b>			
Number of documented odor & nuisance complaints received by state in 2018 related to biosolids transportation and use or disposal outside of the gates of the WWTP:	data not requested for 2004	many	-----
Number of WWTPs involved in those complaints:	data not requested for 2004	0	-----
Percent of population served by on-site systems (e.g. septic systems):	no data	33%	-----

Data are from the 37 U.S. EPA ECHO reports for Arkansas for 2018, with estimates for 12 additional AR WRRFs, resulting in representation of 78% of total statewide average flow - which is the total of 230 MGD shown here. • The 1 separate preparer noted is Mannco Environmental, which takes and heat-dries Benton and other WRRF solids, making Class A biosolids that are distributed to farms and other end users. There may be other separate preparers, but not many. Several companies contract with WRRFs to take the biosolids they produce and land apply them. For example, Denali Water Land applies Class A biosolids (mostly as liquid) from Little Rock lagoons. • The Arkansas Division of Environmental Quality (AR DEQ) has "inspectors who do water and discharge permit inspections too. Complaint-driven. There are some regular inspections of larger operations every 2 years." • The percent of the population relying on septic systems is from <https://www.arkansasonline.com/news/2021/feb/07/program-to-help-area-homeowners-repair-replace/>.

### Biosolids Use and Disposal

UNITS:	Dry metric tons	Dry metric tons	
<b>BIOSOLIDS USED OR DISPOSED, 2018 (adjusted total): 71,000</b>			

#### Summary

	Number of Entities (WWTPs & Sep. Preparers) Going To...	Quantity of Biosolids	Number of Entities (WWTPs & Sep. Preparers) Going To...	Quantity of Biosolids	
<b>Beneficial Use (applied to soils, not including ADC)</b>	22	23,391	33	44,637	NOTE: Quantity of sewage sludge or biosolids used or disposed means the quantity that goes out the gate of the WRRFs. Quantities are in the units (the form of measurement) indicated above.  For estimates of solids from WRRFs with no data in the U.S. EPA ECHO database and for which no information was easily available regarding use or disposal, NBDP allocated most to land application and some to landfill based on best judgement.
<b>Disposal &amp; Alternative Dispositions</b>	12	23,485	21	26,711	
<b>Other</b>	7	5,302	2	236	
<b>TOTAL</b>	<b>41</b>	<b>52,178</b>	<b>54</b>	<b>71,348</b>	

#### Beneficial Use

	Sep. Preparers Going To...	Quantity of Biosolids	Sep. Preparers Going To...	Quantity of Biosolids	
<b>Agricultural (EQ, Class A, &amp; Class B)</b>	22	23,391	24	33,193	Wastewater treatment and storage lagoons are common. Little Rock has large, covered lagoons from which some biogas is harvested and some of which are cleaned out annually, with the solids treated and land applied by a private contractor. Pine Bluff boasts the largest wastewater lagoon system in the country. Dequeen and Paragould are the 2 WRRFs with lagoons that reported to U.S. EPA that they stored solids in 2018, and they are included at left here. But stored solids are not included in the totals on this spreadsheet, as they were not used or disposed in 2018. • In addition to Little Rock, land application of mostly Class B and some Class A and EQ biosolids is done by Conway, Russellville, Harrison, Van Buren, No. Little Rock, Magazine, Morrellton, Benton (Class A, EQ, & Class B), Jonesboro, and Newport. • There are 1000s of acres permitted for biosolids, according to AR DEQ: "1 contractor has over 50 permits and has over 600 acres per permit. Another contractor has many permits with over 1000 acres each. Some are used for industrial waste too. Larger cities have their own permits; Little Rock has about 300 acres, but up to 600 soon, [for] Class A [biosolids]."
<b>Forestland (EQ, Class A, &amp; Class B)</b>	0	0	0	0	
<b>Reclamation (EQ, Class A, &amp; Class B)</b>	0	0	0	0	
<b>Class A EQ Distribution (bagged or bulk, public distribution, or unsure where it went)</b>	0	0	9	11,444	
<b>Beneficial Use Subtotal</b>	<b>22</b>	<b>23,391</b>	<b>33</b>	<b>44,637</b>	
<b>Long-term storage</b>	7	5,302	2	236	
<b>Number of acres to which biosolids were applied:</b>		12,000		see notes at right	

#### Disposal & Alternative Dispositions

	Number of Entities (WWTPs & Sep. Preparers) Going To...	Quantity of Biosolids	Number of Entities (WWTPs & Sep. Preparers) Going To...	Quantity of Biosolids
<b>Landfill (total)</b>	11	23,186	22	26,711
Burial	data not requested for 2004	data not requested for 2004	21	26,526
Alternative daily (ADC), intermediate, or final cover	data not requested for 2004	data not requested for 2004	1	185

Surface Disposal	1	299	0	0
Incineration	0	0	0	0
Cement kiln or industrial furnace	data not requested for 2004	data not requested for 2004	0	0
Deep well injection	data not requested for 2004	data not requested for 2004	0	0
Gasification	data not requested for 2004	data not requested for 2004	0	0
Pyrolysis	data not requested for 2004	data not requested for 2004	0	0
Disposal & Alternative Dispositions Subtotal	12	23,485	21	26,711
<b>TOTAL</b>	<b>41</b>	<b>52,178</b>	<b>56</b>	<b>71,348</b>

### Biosolids Quality Summary

	Number of Entities (WWTPs & Sep. Preparers) Producing...	Quantity of Biosolids	Number of Entities (WWTPs & Sep. Preparers) Producing...	Quantity of Biosolids	NOTE: For "number of entities," the total may not match because some entities go to more than one use or disposal.
Class A EQ	0	0	8	11,444	
Other Class A	0	0	4	13,103	
Class B	22	23,391	20	33,398	
Other (no data, etc.)	19	28,787	20	13,403	
<b>TOTAL</b>	<b>41</b>	<b>52,178</b>	<b>52</b>	<b>71,348</b>	

### Biosolids Treatment Practices

	Estimated Number of WWTPs or Separate Preparers Using...	Estimated Quantity of Biosolids Produced Using...	Estimated Number of WWTPs or Separate Preparers Using...	Estimated Quantity of Biosolids Produced Using...	Data are rough estimates. • AD – some in tanks and some in covered lagoons – is used at Little Rock, Hot Springs, and Conway. • Heat-drying occurs at Fayetteville, Benton, Magnolia, Huntsville. • Compost is produced by Bentonville, Hot Springs, and Searcy (which sends solids to off-site composting).
<b>Stabilization</b>					
<b>Aerobic Digestion (total)</b>	62	no data	a majority of AR WRRFs	no data	
Class A (ATAD/Other)	data not requested for 2004	data not requested for 2004	0	0	
Class B	data not requested for 2004	data not requested for 2004	a majority of AR WRRFs	no data	
<b>Anaerobic digestion (AD) (total)</b>	15	no data	some, in tanks and lagoons	no data	
Class A (e.g. thermophilic)	data not requested for 2004	data not requested for 2004	0	0	
Class B (mesophilic)	data not requested for 2004	data not requested for 2004	some, in tanks and lagoons	no data	
WWTPs co-digesting (FOG, food, glycol, etc.)	data not requested for 2004	data not requested for 2004	0	N/A	
Biogas used (heating, electricity, fuel, etc.;scf/year)	data not requested for 2004	data not requested for 2004	a few	N/A	
<b>Lime/Alkaline (total)</b>	9	no data	a few	no data	
Class A lime/alkaline	data not requested for 2004	data not requested for 2004			
Class B lime/alkaline	data not requested for 2004	data not requested for 2004			
<b>Composting</b>	0	no data	3	7,896	
<b>Thermal (e.g. heat drying, not incineration/gasificatn/pyrol)</b>	0	no data	4	3,548	
Gasification	data not requested for 2004	data not requested for 2004	0	0	
Pyrolysis	data not requested for 2004	data not requested for 2004	0	0	
Hydrolysis (thermal, chemical, etc.)	data not requested for 2004	data not requested for 2004	0	N/A	
Long-term (lagoons, reed beds, etc.)	179	no data	many	N/A	
Oxidation ditch / extended aeration	data not requested for 2004	data not requested for 2004	no data	N/A	
Other stabilization technology	0	no data	no data	no data	
<b>Dewatering</b>					
Belt Filter Press	17	no data	no data	no data	
Plate & Frame Press	0	no data	no data	no data	
Screw Press	0	no data	no data	no data	
Centrifuge	0	no data	no data	no data	
Vacuum Filter	0	no data	no data	no data	
Drying beds (open-air)	31	no data	no data	no data	
Solar drying (e.g. in greenhouse)	data not requested for 2004	data not requested for 2004	no data	no data	
Other dewatering technology	0	no data	no data	no data	
<b>Thickening</b>					
Gravity thickener	data not requested for 2004	data not requested for 2004	no data	no data	
Gravity belt thickener (GBT)	data not requested for 2004	data not requested for 2004	no data	no data	
Centrifuge	data not requested for 2004	data not requested for 2004	no data	no data	
Dissolved air flotation (DAF)	data not requested for 2004	data not requested for 2004	no data	no data	
Other thickening technology	data not requested for 2004	data not requested for 2004	no data	no data	
<b>Other</b>					
Biosolids sold in bags (explain at right what size bags)	data not requested for 2004	data not requested for 2004	0	0	