



# STATE BIOSOLIDS SURVEY

2018 data  
conducted 2020-2021  
biosolidsdata.org

## Alabama

### Infrastructure & Wastewater

	2004 Data	2018 Data	
Total Number of WWTPs:	52 (survey), 278 CWNS	69	
<b>WWTP &amp; Biosolids Infrastructure Totals</b>			
Number of Separate Preparers (in- or out-of-state, receiving solids from your state):	probably 0	0	-----
Total number of your state's WWTPs sending to those Separate Preparers:	0	0	-----
Number of operating sludge incinerators in your state (total):	1	1 WTE	-----
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	no data	-----
Number of WWTPs in your state with industrial pre-treatment programs:	data not requested for 2004	all of the larger WRRFs	-----
Number of WWTPs in your state with <i>sludge</i> lagoons:	data not requested for 2004	some	-----
<b>Wastewater Flow Totals</b>			
Total statewide average daily wastewater flow (MGD):	data not requested for 2004	339	-----
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	no data	-----
Number of WWTPs involved in those complaints:	data not requested for 2004	no data	-----
Percent of population served by on-site systems (e.g. septic systems):	30%	43%	-----

There are no separate preparers treating Alabama biosolids, but there are several land application contractors who manage biosolids for AL water resource recovery facilities (WRRFs), including AAA Septic, Allied, Denali Water, Greensouth, Merrell Bros., Recyc Systems, & Synagro. When these contractors dredge solids from lagoons, they may treat them - and that would define them as separate preparers. • The 1 incinerator is the Huntsville waste-to-energy facility (WTE). • Estimate of % of population served by on-site septic systems is based on reporting here: <https://www.montgomeryadvertiser.com/story/news/local/alabama/2018/07/06/story-first-series-ways-communities-addressing-rise-poverty-related-tropical-diseases-poor-sewage/754311002/>

### Biosolids Use and Disposal

UNITS:	Dry metric tons	Dry metric tons	
<b>BIOSOLIDS USED OR DISPOSED, 2018 (adjusted total): 36,800</b>			
<b>Summary</b>			
	Number of Entities (WWTPs & Sep. Preparers) Going To...	Quantity of Biosolids	Number of Entities (WWTPs & Sep. Preparers) Going To... Quantity of Biosolids
Beneficial Use (applied to soils, not including ADC)	39	42,402	49 25,998
Disposal & Alternative Dispositions	12	18,784	19 10,793
Other	1	57	1 94
<b>TOTAL</b>	<b>52</b>	<b>61,243</b>	<b>69</b> <b>36,790</b>
<b>Beneficial Use</b>			
	Number of Entities (WWTPs & Sep. Preparers) Going To...	Quantity of Biosolids	Number of Entities (WWTPs & Sep. Preparers) Going To... Quantity of Biosolids
Agricultural (EQ, Class A, & Class B)	30	29,372	39 16,837
Forestland (EQ, Class A, & Class B)	0	0	0 0
Reclamation (EQ, Class A, & Class B)	9	13,030	8 7,937
Class A EQ Distribution (bagged or bulk, public distribution, or unsure where it went)	0	0	2 1,223
Beneficial Use Subtotal	<b>39</b>	<b>42,402</b>	<b>49</b> <b>25,998</b>
Long-term storage	1	57	1 94
Number of acres to which biosolids were applied:	no data	no data	no data
<b>Disposal &amp; Alternative Dispositions</b>			
	Number of Entities (WWTPs & Sep. Preparers) Going To...	Quantity of Biosolids	Number of Entities (WWTPs & Sep. Preparers) Going To... Quantity of Biosolids
Landfill (total)	11	12,784	12 6,727

**NOTE:** Quantity of sewage sludge or biosolids used or disposed means the quantity that goes out the gate of the WWTPs. Quantities are in the units (the form of measurement) indicated above.

Data are from ~60 water resource recovery facilities' reports in the U.S. EPA ECHO database, supplemented by a report to the NBDP from Jefferson County. Additional extrapolation was completed by NBDP for Huntsville, resulting in 82% of the state's wastewater flow being represented.

Jefferson County - the Birmingham area - has 9 WRRFs, 8 of which sent biosolids to the Flat Top Mine for use in land reclamation. That was an anomaly in 2018; in most years, some of their solids go to agricultural land application supporting growing hay for construction & landscaping. • The 2 EQ distribution programs are the heat-dried products from Albertville and Foley.

Burial	data not requested for 2004	data not requested for 2004	11	6,242
Alternative daily (ADC), intermediate, or final cover	data not requested for 2004	data not requested for 2004	1	485
Surface Disposal	0	0	1	92
Incineration	1	6,000	6	3,974
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	18,784	19	10,793
<b>TOTAL</b>	<b>52</b>	<b>61,243</b>	<b>69</b>	<b>36,790</b>

The one incineration facility is a waste-to-energy (WTE) facility owned by Huntsville and operated by Covanta Energy. It burns all of the wastewater solids from the 6 Huntsville WRRFs, comixed with area municipal solid waste, generating renewable electricity.

### 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	1	3,550	4	3,032	
Other Class A	0	0	3	1,132	
Class B	23	30,266	48	22,832	
Other (no data, etc.)	28	27,427	8	9,795	
<b>TOTAL</b>	<b>52</b>	<b>61,243</b>	<b>63</b>	<b>36,790</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...
<b>Stabilization</b>				
<b>Aerobic Digestion (total)</b>	no data	no data	30+	9,578
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	30+	9,578
<b>Anaerobic digestion (AD) (total)</b>	no data	no data	11+	0
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	11+	
WWTPs co-digesting (FOG, food, glycol, etc.)	data not requested for 2004	data not requested for 2004	maybe a few	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>	no data	no data	4	4,878
Class A lime/alkaline	data not requested for 2004	data not requested for 2004	4	4,878
Class B lime/alkaline	data not requested for 2004	data not requested for 2004	might be a few small WRRFs	might be a few small WRRFs
<b>Composting</b>	no data	no data	0	0
<b>Thermal (e.g. heat drying, not incineration/gasification/pyrolysis)</b>	no data	no data	2	1,223
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.)	no data	no data	may be a few	N/A
Oxidation ditch / extended aeration	data not requested for 2004	data not requested for 2004	no data	N/A
Other stabilization technology	no data	no data	no data	no data
<b>Dewatering</b>				
Belt Filter Press	no data	no data	no data	no data
Plate & Frame Press	no data	no data	no data	no data
Screw Press	no data	no data	no data	no data
Centrifuge	no data	no data	no data	no data
Vacuum Filter	no data	no data	no data	no data
Drying beds (open-air)	no data	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	no data	no data	no data	N/A
<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

As in many states, aerobic digestion is common, mostly among smaller WRRFs. • The 11 or more AD WRRFs include Albertville, Boaz, Decatur, Mobile, Montgomery, Selma, and the Valley Creek WRF in Jefferson County. • The Class A alkaline stabilization systems are at Fairhope, Florence, and Sheffield. • Heat drying is used for Class A biosolids production at Albertville and Foley.