



STATE BIOSOLIDS SURVEY

2018 data
conducted 2020-2021
biosolidsdata.org

Kansas

Infrastructure & Wastewater

	2004 Data	2018 Data	
Total Number of WWTPs:	25 (survey), 634 CWNS	52 (survey), 623 (CWNS)	
WWTP & Biosolids Infrastructure Totals			
Number of Separate Preparers (in- or out-of-state, receiving solids from your state):	0	no data	-----
Total number of your state's WWTPs sending to those Separate Preparers:	0	no data	-----
Number of operating sludge incinerators in your state (total):	1	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	no data	-----
Number of WWTPs in your state with industrial pre-treatment programs:	data not requested for 2004	no data	-----
Number of WWTPs in your state with <i>sludge</i> lagoons:	data not requested for 2004	several	-----
Wastewater Flow Totals			
Total statewide average daily wastewater flow (MGD):	data not requested for 2004	306	-----
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	-----
Other Totals			
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	0	-----
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):	40%	40%	-----

The data presented here come primarily from two sources: the U.S. EPA's ECHO database; NBDP's survey of WRRFs. 39 facilities submitted annual reports to ECHO, and 14 WRRFs responded to NBDP's survey, 8 of which also had submitted ECHO reports. Data from those 45 individual WRRFs did not meet NBDP's goal of representing at least 75% of the statewide average wastewater flow (MGD). So, solids used or disposed were calculated for an additional 7 WRRFs, multiplying daily wastewater flows (MGD) from Seiple et al. 2020 and the average dmt/MGD of the WRRFs reporting data to ECHO or NBDP (230 dmt/MGD). • Percentage of state on septic systems is estimated based on the NBDP estimate from 2004.

Biosolids Use and Disposal

	UNITS:	Dry metric tons (revs'd dry U.S. tons)	Dry metric tons	
		BIOSOLIDS USED OR DISPOSED, 2018 (adjusted total):		38,000
Summary				
	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)	10	11,688	46	29,165
Disposal & Alternative Dispositions	15	17,297	7	8,568
Other	0	0		
TOTAL	25	28,985	53	37,733
Beneficial Use				
	Sep. Preparers Going To...	Quantity of Biosolids	Sep. Preparers Going To...	Quantity of Biosolids
Agricultural (EQ, Class A, & Class B)	9	10,877	43	28,728
Forestland (EQ, Class A, & Class B)	0	0	0	0
Reclamation (EQ, Class A, & Class B)	0	0	0	0
Class A EQ Distribution (bagged or bulk, public distribution, or unsure where it went)	1	811	3	437
Beneficial Use Subtotal	10	11,688	46	29,165
Long-term storage	0	0	2	1,291
Number of acres to which biosolids were applied:		no data		no data
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
Landfill (total)	14	10,355	6	8,521
Burial	data not requested for 2004	data not requested for 2004	4	4,099

NOTE: Quantity of sewage sludge or biosolids used or disposed means the quantity that goes out the gate of the WWTPs. Use the units (the form of measurement) you chose above.

For the 7 WRRFs for which quantities of solids were estimated by NBDP, it was assumed that the majority were land applied and the rest went to landfill, based on information from municipal and utility websites and statewide trends.

Alternative daily (ADC), intermediate, or final cover	data not requested for 2004	data not requested for 2004	2	4,422
Surface Disposal	0	0	1	47
Incineration	1	6,942	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	15	17,297	7	8,568
TOTAL	25	28,985	53	37,733

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	811	5	1,199	*Other* here includes the 7 facilities for which data were estimated, plus some facilities landfilling solids without tracking quality.
Other Class A	1	0	1	1	
Class B	140	10,877	36	21,954	
Other (no data, etc.)	15	17,297	14	14,579	
TOTAL	157	28,985	56	37,733	

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...	
Stabilization					Data are from some of the 45 WRRFs with 2018 reports in ECHO or responses to the NBDP survey.
Aerobic Digestion (total)	75	no data	22+		
Class A (ATAD/Other)	data not requested for 2004	data not requested for 2004			
Class B	data not requested for 2004	data not requested for 2004			
Anaerobic digestion (AD) (total)	25	no data	11+		
Class A (e.g. thermophilic)	data not requested for 2004	data not requested for 2004			
Class B (mesophilic)	data not requested for 2004	data not requested for 2004			
WWTPs co-digesting (FOG, food, glycol, etc.)	data not requested for 2004	data not requested for 2004		N/A	
Bogas used (heating, electricity, fuel, etc.;scf/year)	data not requested for 2004	data not requested for 2004		N/A	
Lime/Alkaline (total)	2	no data	1		
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			
Composting	1	no data	1	300	
Thermal (e.g. heat drying, not incineration/gasificatn/pyrol)	0	no data			
Gasification	data not requested for 2004	data not requested for 2004			
Pyrolysis	data not requested for 2004	data not requested for 2004			
Hydrolysis (thermal, chemical, etc.)	data not requested for 2004	data not requested for 2004		N/A	
Long-term (lagoons, reed beds, etc.)	0	no data		N/A	
Oxidation ditch / extended aeration	data not requested for 2004	data not requested for 2004		N/A	
Other stabilization technology	0	no data			
Dewatering					
Belt Filter Press	25	no data			
Plate & Frame Press	0	no data			
Screw Press	0	no data			
Centrifuge	1	no data	1		
Vacuum Filter	3	no data			
Drying beds (open-air)	0	no data	6+		
Solar drying (e.g. in greenhouse)	data not requested for 2004	data not requested for 2004			
Other dewatering technology	0	no data			
Thickening					
Gravity thickener	data not requested for 2004	data not requested for 2004			
Gravity belt thickener (GBT)	data not requested for 2004	data not requested for 2004			
Centrifuge	data not requested for 2004	data not requested for 2004			
Dissolved air flotation (DAF)	data not requested for 2004	data not requested for 2004			
Other thickening technology	data not requested for 2004	data not requested for 2004			
Other					
Biosolids sold in bags (explain at right what size bags)	data not requested for 2004	data not requested for 2004			