NATIONAL BIOSOLIDS DATA PROJECT

STATE BIOSOLIDS SURVEY

2018 data
conducted 2020-2021
biosolidsdata.org

Arizona

Infrastructure & Wastewater

	2004 Data	2018 Data	
Total Number of WWTPs:	**43 (survey), 166 CWNS**	**23**	
WWTP & Biosolids Infrastructure Totals			
Number of Separate Preparers (in- or out-of-state, receiving solids from your state):	2	0	----------
Total number of your state's WWTPs sending to those Separate Preparers:	0	0	----------
Number of operating sludge incinerators in your state (total):	0	0	----------
Fluidized bed:	0	0	----------
Multiple hearth:	0	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	all the larger WRRFs	----------
Number of WWTPs in your state with *sludge* lagoons:	data not requested for 2004	several	----------
Wastewater Flow Totals			
Total statewide average daily wastewater flow (MGD):	data not requested for 2004	418	----------
Total statewide WWTP *design* capacity for wastewater flow (MGD):	data not requested for 2004	no data	----------
Total statewide average daily *dry weather* 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	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):	no data	20%	----------

Data are from U.S. EPA's ECHO database (2 AZ WRRF responses), the NBDP national survey (2 WRRF responses), internet-based sources, and EPA Region 9. NBDP estimated solids production for another 19 larger water resource recovery facilities (WRRFs) to achieve data that accounts for ~93% of the state's total wastewater flow. Solids production estimates were calculated assuming 195 dmt of solids production per MGD of flow, which was the average of several AZ facilities for which accurate data were available. • The AZ Soils Composting Facility is a separate preparer in AZ, but it only processes CA biosolids and is not counted here. • Percent of population relying on septic systems is the NBDP default value.

Biosolids Use and Disposal

UNITS:	**Dry metric tons**	**Dry metric tons**	
BIOSOLIDS USED OR DISPOSED, 2018 (adjusted total):			**76,000**

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)	18	71,000	13	61,242
Disposal & Alternative Dispositions	15	9,000	10	14,797
Other	10	10,000	1	171
TOTAL	**43**	**90,000**	**24**	**76,039**

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.

Beneficial Use

	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)	16	70,000	12	61,192
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)	2	1,000	1	50
Beneficial Use Subtotal	**18**	**71,000**	**13**	**61,242**
Long-term storage	10	10,000	1	171
Number of *acres* to which biosolids were applied:		data not provided		no data

Almost all AZ wastewater solids – including from Phoenix and Tucson – are treated to meet Class B standards and are land applied on agricultural fields. • One small composting facility is at the Pinetop-Lakeside WRRF. • Data reported here do not include the nearly 100,000 dmt of biosolids sent to AZ by CA WRRFs; they are included in CA 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)	10	6,000	9	13,473	
Burial	data not requested for 2004	data not requested for 2004	9	13,473	
Alternative daily (ADC), intermediate, or final cover	data not requested for 2004	data not requested for 2004	0	0	
Surface Disposal	5	3,000	1	1,324	
Incineration	0	0	0	0	
Cement kiln or industrial furnace	data not requested for 2004	data not requested for 2004	0	0	Chandler is the largest community relying on landfill disposal. Many small WRRFs do as well. • Flagstaff is the one community with a dedicated surface disposal site.
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**	**9,000**	**10**	**14,797**	
TOTAL	**43**	**90,000**	**24**	**76,039**	

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	4	1,000	1	50	
Other Class A	0	0	0	0	
Class B	24	80,000	12	61,192	
Other (no data, etc.)	15	9,000	10	14,797	
TOTAL	**43**	**90,000**	**23**	**76,039**	

Biosolids Treatment Practices - No 2018 Data Available

	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					
Aerobic Digestion (total)	5	2,500			
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)	10	68,000			
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	
Biogas used (heating, electicity, fuel, etc.;scf/year)	data not requested for 2004	data not requested for 2004		N/A	
Lime/Alkaline (total)	0	0			
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	2	10,090			
Thermal (e.g. heat drying, not incineration/gasificatn/pyrol)	1	400			
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.)	many	0		N/A	
Oxidation ditch / extended aeration	data not requested for 2004	data not requested for 2004		N/A	
Other stabilization technology	0	0			
Dewatering					
Belt Filter Press	0	0			
Plate & Frame Press	0	0			
Screw Press	0	0			
Centrifuge	0	0			
Vaccuum Filter	0	0			
Drying beds (open-air)	22+	no data			
Solar drying (e.g. in greenhouse)	data not requested for 2004	data not requested for 2004			
Other dewatering technology	0	0			
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			