



**B A C W A**  
**BAY AREA**  
**CLEAN WATER**  
**AGENCIES**

## BACWA Biosolids Survey 2024 for Calendar Years 2021 - 2023

BACWA is continuing to track regional biosolids trends by surveying agencies every few years (see [previous surveys](#)). Please take a few minutes to answer the following questions regarding your agency's biosolids activities in calendar year 2023. BACWA will compile the responses and distribute to all members.

The intent of this survey is to quantify specific biosolids information from Bay Area agencies to track industry trends for the following issues:

- Biosolids production volumes
- Treatment and dewatering technologies
- End use and disposal options
- Program costs and challenges
- Compliance with California's Short-Lived Climate Pollutants Reduction Strategy (SB-1383)
- Public outreach

At the end of the survey (beginning with **Question 16**), you will be asked to enter detailed information about biosolids end uses in 2023. BACWA will also compile information that your agency submitted to USEPA's [ECHO Database](#) in Biosolids Annual Reports for Calendar Years 2021, 2022, and 2023.

**Thank you!**

1 Name of Agency

2 Name of respondent

3 Respondent email address

4 What technology does your agency use to produce and/or treat biosolids?  
(Select all that apply)

- Anaerobic Digestion (Thermophilic)
- Anaerobic Digestion (Mesophilic)
- Thermal hydrolysis or thermal-chemical hydrolysis (at my facility)
- Composting (at my facility)
- Air Drying
- Thermal drying
- Biodrying
- Pyrolysis
- Incineration
- Lime stabilization
- Pond or Lagoon stabilization
- Hauling to another facility for further treatment via Thermal Hydrolysis (e.g., Lystek)
- Hauling to another facility for further treatment via Composting
- Other (please specify)

5 Please identify your facility's dewatering process from the list below

- Centrifuge
- Belt Filter Press
- Indirect Dryer
- Direct Dryer
- Drying Bed
- Screw Press
- None - My facility does not have a dewatering process
- Other (please specify)

6 Please describe your dewatering or drying equipment, including the name of the manufacturer

7) What are the main challenges your agency faces with biosolids use and disposal? Please choose **up to 3** challenges that apply to your agency.

- Rising costs for off-site handling
- Hauling distance
- Inadequate short-term storage capacity for biosolids
- Inadequate capacity at our preferred end use (e.g., landfill, land application, or additional treatment provider)
- Regulatory Restrictions on using Biosolids for Alternative Daily Cover (SB 1383)
- Local or County restrictions on land application
- Wet weather impeding operations
- Public health concerns regarding biosolids land application (PFAS, microplastics, pathogens, etc.)
- Administrative challenges with contracting

8) If desired, please add further explanations about the challenges your agency faces with biosolids.

9) What does your agency plan to do with your biosolids in the near future (2024-2026)?

- Same plan/strategy as 2023
- Our agency will implement changes as described below.

Describe changes

10) Has your agency recently completed a master plan for biosolids? If so, are you willing to share it?

- No
- Yes, we could share a copy of our biosolids master plan upon request
- Yes, but we cannot share it at this time

11

How has your agency **already responded** to SB 1383's limits on landfill use and required diversions of organic waste? (Check all that apply)

- SB 1383 has not impacted biosolids management at my agency
- Accepted diverted organic waste for **co-digestion**
- Improved biosolids **treatment technology** at the plant to expand use and disposal options
- Increased reliance on **land application** in lieu of other disposal options
- Increased the volume of biosolids **sent to another facility or third party for additional treatment**
- Other
- Please elaborate on your agency's plans

12

What **future plans** does your agency have as a result of SB 1383's limits on landfill use and required diversions of organic waste? (Check all that apply)

- No additional plans
- Accepting more diverted organic waste for **co-digestion**
- Improving biosolids **treatment technology** at the plant to expand use and disposal options
- Increasing reliance on **land application** in lieu of other disposal options
- Increasing the volume of biosolids **sent to another facility or third party for additional treatment**
- Other
- Please elaborate on your agency's plans.

13

Please explain below how your agency manages biosolids staffing, including personnel responsible for biosolids treatment (e.g., digesters), dewatering, and biosolids end uses.

This may include staff working in O&M, contract management, and/or regulatory compliance.

How many Full Time Equivalent (FTE) staff are required for biosolids management?

Please describe the staff roles you included in your estimate of FTEs.

14 Does your agency include biosolids in your outreach and education programs?  
(Examples: Customer Bill inserts, agency website, social media posts, etc.)

No

Yes (please briefly describe)

15 If you would like to receive notice of the survey results and be added to the BACWA Biosolids Committee listserv, please include your name and email address or those of your staff.



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## BACWA Biosolids Survey 2024 for Calendar Years 2021 - 2023

This page contains questions about biosolids end uses at your agency in  
**Calendar Year 2023 only.**

16 In 2023, who was responsible for **biosolids hauling** at your agency?

**A contractor** was responsible for biosolids hauling

**My agency** hauled its own biosolids

Other (please specify)

17 In 2023, who was responsible for **biosolids end uses** at your agency?

**A contractor** was responsible for selecting and managing end uses for our biosolids

**My agency** selected and managed end uses for our biosolids

Other (please specify)

The fields below allow you to input information for each destination where you sent biosolids in 2023.  
You may enter as many destinations as applicable for your agency.

If you prefer to enter this information into an Excel table, you can download a [blank template](#) and email  
the file to [mcousins@bacwa.org](mailto:mcousins@bacwa.org)

18 Alternate submittal

I plan to email the Excel file to Mary ([mcousins@bacwa.org](mailto:mcousins@bacwa.org)) instead of filling out this form

**19 Destination 1**

Location of end use

Type of end use (ADC, landfill disposal, land application, compost, onsite disposal, incineration, Lystek, other)

Tons of wet weight sent to destination in 2023

Percent solids (%)

Class of solids (A or A-EQ, B, other)

One-way hauling distance (miles)

Total Cost \$/ton (transportation, management & other fees) to Destination 1

Cost Breakdown: Transportation Cost \$/ton to Destination 1 (if available)

Cost Breakdown: Management or Tipping Cost \$/ton to Destination 1 (if available)

Other information you would like to share about this destination



**\*20 Destination 2**

Location of end use

Type of end use (ADC, landfill disposal, land application, compost, onsite disposal, incineration, Lystek, other)

Tons of wet weight sent to destination in 2023

Percent solids (%)

Class of solids (A or A-EQ, B, other)

One-way hauling distance (miles)

Total Cost \$/ton (transportation, management & other fees) to Destination 2

Cost Breakdown: Transportation Cost \$/ton to Destination 2 (if available)

Cost Breakdown: Management or Tipping Cost \$/ton to Destination 2 (if available)

Other information you would like to share about this destination





**21 Destination 3**

Location of end use

Type of end use (ADC, landfill disposal, land application, compost, onsite disposal, incineration, Lystek, other)

Tons of wet weight sent to destination in 2023

Percent solids (%)

Class of solids (A or A-EQ, B, other)

One-way hauling distance (miles)

Total Cost \$/ton (transportation, management & other fees) to Destination 3

Cost Breakdown: Transportation Cost \$/ton to Destination 3 (if available)

Cost Breakdown: Management or Tipping Cost \$/ton to Destination 3 (if available)

Other information you would like to share about this destination



**22 Destination 4**

Location of end use

Type of end use (ADC, landfill disposal, land application, compost, onsite disposal, incineration, Lystek, other)

Tons of wet weight sent to destination in 2023

Percent solids (%)

Class of solids (A or A-EQ, B, other)

One-way hauling distance (miles)

Total Cost \$/ton (transportation, management & other fees) to Destination 4

Cost Breakdown: Transportation Cost \$/ton to Destination 4 (if available)

Cost Breakdown: Management or Tipping Cost \$/ton to Destination 4 (if available)

Other information you would like to share about this destination



**23 Destination 5**

Location of end use

Type of end use (ADC, landfill disposal, land application, compost, onsite disposal, incineration, Lystek, other)

Tons of wet weight sent to destination in 2023

Percent solids (%)

Class of solids (A or A-EQ, B, other)

One-way hauling distance (miles)

Total Cost \$/ton (transportation, management & other fees) to Destination 5

Cost Breakdown: Transportation Cost \$/ton to Destination 5 (if available)

Cost Breakdown: Management or Tipping Cost \$/ton to Destination 5 (if available)

Other information you would like to share about this destination



**24 Destination 6**

Location of end use

Type of end use (ADC, landfill disposal, land application, compost, onsite disposal, incineration, Lystek, other)

Tons of wet weight sent to destination in 2023

Percent solids (%)

Class of solids (A or A-EQ, B, other)

One-way hauling distance (miles)

Total Cost \$/ton (transportation, management & other fees) to Destination 6

Cost Breakdown: Transportation Cost \$/ton to Destination 6 (if available)

Cost Breakdown: Management or Tipping Cost \$/ton to Destination 6 (if available)

Other information you would like to share about this destination



**25 Destination 7**

Location of end use

Type of end use (ADC, landfill disposal, land application, compost, onsite disposal, incineration, Lystek, other)

Tons of wet weight sent to destination in 2023

Percent solids (%)

Class of solids (A or A-EQ, B, other)

One-way hauling distance (miles)

Total Cost \$/ton (transportation, management & other fees) to Destination 7

Cost Breakdown: Transportation Cost \$/ton to Destination 7 (if available)

Cost Breakdown: Management or Tipping Cost \$/ton to Destination 7 (if available)

Other information you would like to share about this destination



**26 Destination 8**

Location of end use

Type of end use (ADC, landfill disposal, land application, compost, onsite disposal, incineration, Lystek, other)

Tons of wet weight sent to destination in 2023

Percent solids (%)

Class of solids (A or A-EQ, B, other)

One-way hauling distance (miles)

Total Cost \$/ton (transportation, management & other fees) to Destination 8

Cost Breakdown: Transportation Cost \$/ton to Destination 8 (if available)

Cost Breakdown: Management or Tipping Cost \$/ton to Destination 8 (if available)

Other information you would like to share about this destination