

### 1. Welcome

**Welcome to The National Biosolids Regulation, Quality, End Use and Disposal Survey for 2018.** This is the second time this major national survey is being completed; the initial survey was published in 2007, reporting 2004 data. (You can download that report at the bottom of this page: <https://www.nebiosolids.org/national-biosolids-survey-2018-data>.)

**This survey relies on state biosolids coordinators and other key stakeholders in each state - the people most knowledgeable about sewage sludge / biosolids management locally.** The results will be published in early 2021 and will benefit all stakeholders in the management of wastewater and biosolids.

**Thank you for your time and help with this survey! We know it is a lot to ask.** It will take you a couple of hours, but your input is vital to advancing nationwide understanding for the whole profession.

**We are here to help.** We can go over details & questions with you on the phone and/or by sharing our screen through your browser - even entering your data for you, if you want. Let your project team contact know what works for you. We will have a phone call with you to go over your data. And, when we have completed our final data tables & report for your state, we will ask you to review it, to make sure we have it right. Note that the final report will not include your name, and we will not share your contact information.

**The data requested are about: *sewage sludge, biosolids, and septage, from public and private wastewater treatment plants (WWTPs) treating domestic sewage, who used or disposed of sewage sludge/biosolids in 2018.***

**Please provide data and respond to each question to the best of your ability.** If firm data are not available, estimates are acceptable. Add explanations & comments in the spaces provided. You know more than we do about your state; any of your observations advance our knowledge.

**The survey is in two parts:**

- 1) a spreadsheet specifically for your state, and
- 2) ~60 questions in this online survey.

**Start the survey now:**

- a) Complete the questions on this page, below (3 minutes).
- b) Click to the next page and download your state spreadsheet (1 minute). Then close out of this online survey.

c) Complete all or most of your state spreadsheet.

d) Once you have the spreadsheet mostly done, return here using the same link you used today, using the same computer, and finish the online survey, clicking "Next" (below) to advance pages.

\* Your name:

\* State / Territory

\* How can we reach you? (We will not publish or share this contact information.)

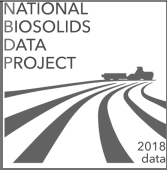
email:

phone:

**State agency's biosolids websites** (if any).... Include links to state biosolids and septage regulations, etc., if available.

\* **What unit(s) do you use for sewage sludge and biosolids quantities?** Choose the one that you use usually. Please enter data in the spreadsheet & this online survey using these unit(s).

Other unit and/or comments about units used.



## 2. Downloading State Spreadsheet

**\* Please download & complete the spreadsheet for your state before proceeding with more of this online survey.** You will be able to come back later, using the same computer, to complete the online survey.

**Download your spreadsheet at <https://www.nebiosolids.org/nbii2definitions>.**

**Please indicate below when you hope to have the spreadsheet completed.**

When I hope to complete the survey:

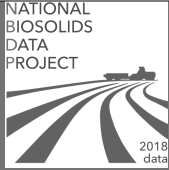
Date

**When you are finished (or mostly finished) with the spreadsheet,** email it to your contact or [ned.beecher@nebiosolids.org](mailto:ned.beecher@nebiosolids.org), with any comments or questions about it.

**Proceed with the online survey by clicking to the next page below.**

**Note that you can close this survey and come back any time, using the same computer, to pick up where you left off.**



## State Biosolids Survey

### 3. Start of Online Survey - Instructions

**Now that you have worked on your state spreadsheet.... in this online part of the survey you will provide answers about:**

- economics of biosolids management in your state
- state regulations & permitting compared to Part 503
- trends in biosolids management in your state
- septage & other residuals management

You can provide comments & explanations at the end of each page and at the end of the full survey.

**For this online part, you can start the survey & come back to it later, using the same computer.**

#### **Directions:**

- Please provide the requested information to the best of your knowledge.
- All data and information should be for 2018 (or, if not available, please let us know, and we'll discuss using a year close to 2018).
- Please add explanatory comments (e.g. if data are estimated). Use the comment boxes provided at the end of each page.
- All data should be in the units you indicated on page 1 (click Prev, below, to see that).

4. Biosolids-related Economic Data

\* Does your state collect economic data on biosolids management?

	yes/no
cost per ton to produce biosolids	<input type="text"/>
tipping fees	<input type="text"/>
what WWTPs pay contractors for biosolids management, per ton	<input type="text"/>
revenues from the sale of biosolids	<input type="text"/>

Other (please specify)

**Contracted fee for sludge/biosolids removal...** For this and the rest of the questions on this page, please provide your *best estimate*. If you don't have any idea, just put in a zero (0). Please provide your best estimate of the fee/cost per wet U. S. ton paid by WWTPs for contractors to take sludge or biosolids from the WWTP gate for end use or disposal in 2018.

minimum cost per wet U. S. ton (low end of the range):

maximum cost per wet U. S. ton (high end of the range):

**Septage disposal fees charged by WWTPs....** Please provide your best estimate of the septage disposal fee/cost per gallon charged by WWTPs in your state in 2018.

minimum cost per gallon (low end of the range):

maximum cost per gallon (high end of the range):

**Number of biosolids management jobs in your state in 2018 (not including regulatory agency staff). Please provide your best estimate of the total full-time equivalents (FTEs) for all those working on biosolids, including WWTP staff (working on biosolids, not all staff), contractors, engineers, land appliers, etc. who work full or part-time on biosolids, but not including your regulatory agency staff.**

number of biosolids FTEs  
in state in 2018:

**Biosolids product pricing.... Please provide your best estimate of the prices for the following biosolids products in your state:**

Biosolids compost,  
wholesale (to soil brokers,  
landscapers, garden  
suppliers, etc.), \$/cubic  
yard:

Biosolids compost, retail  
(to end users, customers),  
\$/cubic yard:

Heat dried pellets or other  
biosolids in bags, \$/~40  
pounds:

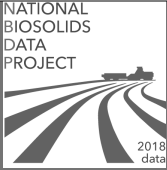
Bulk Class A biosolids or  
ton-bags to farmers,  
landowners, \$/wet ton:

Bulk Class B biosolids to  
farms, etc., \$/wet ton:

**Percentage (%) of your state's sludge/biosolids managed by private contractors. Please provide your best estimate.**

(%) Percentage managed  
by private contractors:

**Explanations & comments on any of the questions on this page:**



## State Biosolids Survey

### 5. Biosolids Regulation and Permitting, page 1 of 3

**Delegation..... As of 2018, which of the following applies regarding U. S. EPA delegation of your state to administer the federal 40 CFR Part 503 biosolids rule?**

- Have received delegation from U. S. EPA for full rule
- Have received delegation from U. S. EPA for portion of the rule (indicate which portion(s) in comment box below)
- In process of applying for or having application reviewed
- Planning to seek delegation from U. S. EPA sometime in the future when resources (e.g. time and funding) allow.
- Not planning to seek delegation from U. S. EPA

Please explain, if needed...

**As of 2018, which division(s) of your state's government regulates and/or oversees biosolids management, disposal, and end use? Check all that apply and explain in comment box below.**

- Environment agency - water / wastewater program
- Environment agency - solid waste program
- Public health department or agency (indicate state or county)
- Agriculture department
- Other (please specify)

**What mechanism(s) does the state agency utilize to regulate biosolids end use and disposal?**

- specific NPDES type permit
- general NPDES type permit
- solid waste license/permit
- Other (please specify)

**Indicate how biosolids land application sites are permitted (or planned or other forms of state oversight).**

- under the system described in the previous question
- issued as a separate general permit
- issued as separate site-specific permits
- Other (please specify)

**Does your state allow land appliers or land-owners (who are not the WWTP/ generator) to become the holder of legal liability for biosolids end use?**

- Yes
- No

Please explain...

**Does your state allow Class B biosolids from more than one WWTP to be land applied on the same site in the same crop year?**

- Yes
- No

If yes, is it actually being done?

- Yes
- No

If yes, on how many sites is it done each year?



**FTEs... As of today, how many full-time employees and full-time employee equivalents (FTEs) work in your state agency's biosolids regulatory program? Include only the proportion of a person's time spent on biosolids; i.e. one individual biosolids and septage coordinator may spend .7 FTE on biosolids and .3 FTE on septage; include only the biosolids amount here.**

FTEs in state biosolids  
program:

**When were your state's biosolids/sewage sludge management regulations last updated formally (year)?**

**Explanations & comments on any of the questions on this page:**

### 6. Biosolids Regulation and Permitting, page 2 of 3

**As of 2018, did your state's biosolids regulations have additional requirements above and beyond the federal Part 503 rule?**

- Yes
- No

If yes, indicate in which areas there are additional requirements:

- Management practices (setbacks, public access restrictions, etc.)
- Pathogen and/or vector attraction reduction limits (e.g. your state requires tests or certifications different from Part 503)
- Pollutant (trace metals, etc.) limits.

Please explain the added management practices and pathogen/VAR requirements here:

**If your state has pollutant (trace metals, etc.) limits different from Part 503, they should be listed in your state spreadsheet that you downloaded. Please confirm by clicking the dropdown menu here:**

▼

**Indicate if any of the following oversight, certification, odor control, or pathogen control requirements are required (as of 2018) for biosolids land application programs in your state:**

- Independent (not from WWTP or contracted land applier) inspectors or monitors at land application sites
- Certification of biosolids land appliers (land application contractors or WWTP operators) who manage or implement land application programs
- Numerical odor emission limits at land application sites
- Other requirements or actions to control odors at land application sites (nuisance restrictions)
- Sampling and testing of Class A biosolids for the presence of pathogens if three weeks or more have elapsed since processing (e.g. after curing or storage).

Explain (optional):

For those that are not required, indicate if any of the following occur voluntarily (as of 2018) for biosolids land application programs in your state:

- Independent (not from WWTP or contracted land applier) inspectors or monitors at land application sites
- Certification of biosolids land appliers (land application contractors or WWTP operators) who manage or implement land application programs
- Numerical odor emission limits at land application sites
- Other requirements or actions to control odors at land application sites (nuisance restrictions)
- Sampling and testing of Class A biosolids for the presence of pathogens if three weeks or more have elapsed since processing (e.g. after curing or storage).

Explain (optional):

**Does your state require any additional monitoring (e.g. groundwater, soil, plant) at land application sites?**

- Yes, for Class B land application
- Yes, for all land application (provide details below)
- No

If yes, please explain at what sites it is required, testing for what parameters, frequency of testing, etc.:

**As of 2018, what is the basis of your state's agronomic loading rate for land application of biosolids?**

- Nitrogen
- Phosphorus
- Other (please specify)

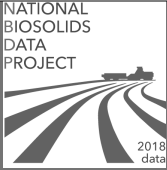
**Does your state biosolids regulatory program require formal nutrient management plans (NMPs) for sites where biosolids are land applied? An NMP is a farm-wide plan for tracking all nutrient sources, not just biosolids.**

- Yes
- No

**Does your state manage or control application of phosphorus in biosolids in any way? How? Please indicate all that apply:**

- no state restrictions or controls on P applied in biosolids
- time of year of application
- based on test of *total* P in soil and/or biosolids
- site limitations
- increased distance to surface water
- based on test of *available* P in soil and/or biosolids
- slope
- using a P Index
- Other (please specify)

**Explanations & comments on any of the questions on this page:**



7. Biosolids Regulation and Permitting, page 3 of 3

Indicate the total number of acres in your state that were newly permitted by the state (site-specific permits) to receive land applied biosolids in 2018 (do not include re-permitting of existing sites):

Number of newly-permitted acres:

Indicate the number of those newly-permitted acres that actually had biosolids applied to in 2018:

How many new site permits/approvals were issued in 2018?

number of new site permits/approvals:

From whom does your state require reporting of biosolids information and data? Indicate all that apply:

- only major TWTDS (>1 MGD)
- majors and minors
- sludge-only processing facilities (separate preparers)
- Other (please specify)

**Specify how the public can access these biosolids reports and/or data summaries (indicate all that apply):**

- From state website
- From EPA regional office
- By mail or in person from state agency
- From regional association website
- From WWTP websites
- Other (please specify)

**If your state compiles and/or reports biosolids data electronically, what format(s) are used? Indicate all that apply:**

- Biosolids reports and data are only kept in paper format.
- Excel
- Access
- Filemaker
- PCR
- BDMS
- Other (please specify)

**Number of documented inspections by state regulators of biosolids facilities and field sites in 2018.**

number of inspections:

**Number of formal regulatory violations issued by your state to biosolids facilities, operations, and field sites in 2018.**

number of violations:

**Does your state have biosolids product labeling requirements, as of 2018?**

for EQ products:

for other Class A products:

for Class B:

**Does your state require registration and/or reporting for EQ biosolids entering the state, as of 2018?**

registration or permit  
required:

reporting required about  
biosolids entering the  
state:

Please explain...

**Explanations & comments on any of the questions on this page:**

## 8. Trends in Biosolids Management

Indicate which, if any, legislative, regulatory, or other activity was happening or imminent in your state in 2018 and what its impacts are expected to be:

This will likely...

No activity in 2018

Development of, or changes to, state biosolids regulations

Development of, or changes to, local (county, municipal) biosolids ordinances/regulations

Change to state statute(s) regarding biosolids management

Other

Other (please specify)

**As of 2018, are local units of government (towns, cities, counties) allowed to enact ordinances that are more restrictive than state law regarding biosolids use and/or disposal?**

Yes

No

Explain (optional)

How many local units of government have adopted more restrictive ordinances?

number of municipalities:

number of counties:



Is the number of local actions increasing or decreasing?

Other (please specify)

**What do you consider to be the top five (5) pressures on biosolids recycling programs in your state, as of 2018? Read choices carefully and choose what fits best. Some categories, such as "agricultural issues," have more than one choice.**

	1	2	3	4	5
TRADITION – it's difficult to change from long-standing practices or existing and known infrastructure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
TRADITION - WWTP management doesn't care where it goes, just contracts to make it go away	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
TRADITION - recycling biosolids is not a priority or part of WWTP's core mission	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
COST – disposal options are least expensive	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
COST – beneficial use options are least expensive	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
COST - rising costs generally	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
REGULATIONS ON BENEFICIAL USE– strict EPA and/or state regulation and enforcement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
REGULATIONS ON BENEFICIAL USE – restrictive local ordinances	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
REGULATIONS ON BENEFICIAL USE – lack of regulatory support for beneficial use	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
REGULATIONS ON DISPOSAL – strict regulations or fees on disposal	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	1	2	3	4	5
<b>PUBLIC INVOLVEMENT-</b> concerns of neighbors, environmental groups, and others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>NUISANCE ISSUES –</b> odors, truck traffic, dust, etc.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>AGRICULTURAL ISSUES - declining</b> farmland due to less agriculture or due to development, sprawl, seasonal restrictions, or competition with manures, etc.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>AGRICULTURAL ISSUES - soil</b> compaction, difficulty with timing, stockpiling, etc.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>ENVIRONMENTAL ISSUES - nutrient</b> management, phosphorus (P), nitrogen (N)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>ENVIRONMENTAL ISSUES - impacts to</b> soils, organisms, public health, contaminants (pathogens, metals, organic chemicals, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>MANAGEMENT ISSUES</b> - securing long-term use options	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>MANAGEMENT ISSUES</b> - the hassle of biosolids recycling/land application	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>MANAGEMENT ISSUES</b> - hauling distances	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>OTHER</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

If 'Other' selected above, please explain here:

\* Overall, was the beneficial use (see [Definitions](#)) of biosolids increasing in your state as of 2018?

- Yes
- No
- It's staying the same.
- Don't know

Explain (optional):

\* Overall, is the beneficial use of biosolids increasing in your state as of today?

- Yes
- No
- It's staying the same.
- Don't know

Why or why not? Please explain:

**Please list up to 6 biosolids management programs in your state that have been particularly successful, well-run, and effective over the years. These can be WWTPs, separate preparers, marketers/distributors, other businesses, farms, other landowners, etc. Please provide the name and location.**

name, location:

name, location:

name, location:

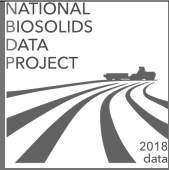
name, location:

name, location:

name, location:

**Explanations & comments on any of the questions on this page:**





### 9. Septage and Other Residuals

**\* Do you have data and information on septage management in your state?**

- Yes
- No

**If not, indicate whom to contact for septage management information.**

Septage program contact name:	<input type="text"/>
Contact phone number:	<input type="text"/>
Contact email:	<input type="text"/>
Agency/Department:	<input type="text"/>

## 10. Septage management

**Estimate the number of septage haulers that are based in your state (they may do business in other states as well).**

number of septage  
haulers:

**Estimate the number of separate preparers (not WWTPs) in your state taking in septage in 2018 (they may also take in sewage sludge).**

Number of septage  
separate preparers:

**Does your state require any or all WWTPs to accept septage?**

Yes

No

Explain (optional)

**Number of WWTPs that accept septage in your state (whether or not they received any septage in 2018).**

number of WWTPs that  
accept septage:

**How much septage was received by your state's WWTPs in 2018 (gallons/year)?**

septage received at  
WWTPs (gallons/year):

**What other outside wastes - and how much (indicate gallons or tons) were accepted at your state's WWTPs in 2018? Estimates & discussion are welcome.**

Food & beverage processing wastes (gallons or tons):

Other WWTP sludge (gallons or tons):

Municipal and/or commercial separated food waste (gallons or tons):

Other outside waste (gallons or tons):

Please provide details:

**When were your state's septage management regulations last updated formally (year)?**

**FTEs... As of today, how many full-time employees and full-time employee equivalents (FTEs) work in your state's septage program? Include only the proportion of a person's time spent on septage; i.e. one individual biosolids and septage coordinator may spend .7 FTE on biosolids and .3 FTE on septage; include only the septage amount here.**

FTEs in state septage program:

**Can septage be land applied in your state?**

- Yes  
 No

If yes, what treatment is required prior to land application?

- Meet Part 503  
 Meet Part 503 and the following additional state requirements:

Please briefly describe additional state requirements:

**Please estimate the amount (percentage) of hauled septage that is... (Your numbers should add up to 100%.)**

% land applied directly (not after further treatment or storage):

% hauled to WWTPs:

% disposed in lagoons:

% sent to separate preparer or septage-only treatment facility (e.g. compost operation):

% landfilled:

% incinerated:

% other:

Please specify this "other" septage destination and add any further explanations here.

**Does your state agency and the state's WWTPs consider fats, oils, and grease (FOG) to be a significant issue?**

- Yes  
 No  
 Don't know

**Does your state regulate the use or disposal of brown grease (grease trap waste, FOG)?**

- Yes  
 No  
 Don't know



If yes, under what rules is it regulated:

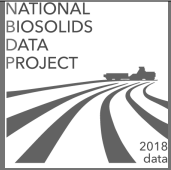
- septage regulations
- biosolids/sludge regulations
- health regulations
- wastewater permits/regulations
- Other (please specify)

**Does your state have a proactive program to collect fats, oils, and grease (FOG), keeping them out of the general wastewater flow, and using or disposing of them appropriately?**

- Yes
- No

If yes, please describe this program:

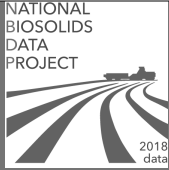
**Explanations & comments on any of the questions on this page:**



## State Biosolids Survey

### 11. Additional Details & Comments

Add further explanations or clarifications here.



## State Biosolids Survey

### 12. Thank you.

**Thank you for completing the National Biosolids Regulation, Quality and End Use & Disposal Survey for 2018 data!**

**Note that you can come back and update your responses by using the same link your used to get here this time. But please let your contact and [ned.beecher@nebiosolids.org](mailto:ned.beecher@nebiosolids.org) know if you make a change, so we can be sure we have your latest version.**

**A final report, including results and analysis, is expected to be completed in early 2021. For more information contact [ned.beecher@nebiosolids.org](mailto:ned.beecher@nebiosolids.org).**