



# **Sewage Treatment Systems Program Survey**

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# Purpose

- ORC 3718.07 requires it.
- Establish baseline statewide
  - Initial surveys will not be scored
- Use findings to help determine training needs
  - Contractors
  - Sanitarians
  - System Owners

# Scheduling

- A third of the health districts will be scheduled each year
- Staff will be assigned to the individual surveys quarterly
- Once assigned, will contact health district to confirm survey dates

# Items to gather before the survey dates

- Fee Review
  - Cost analysis for fee categories
  - Notices of proposed fee increases
  - BOH minutes for fee adoption
  - Proof of publication of fees

- Policy Review
  - Optional Board Action Items
  - Any “supplemental” rules adopted by BOH
  - A list of registered contractors and categories of registration, for the current registration year.

# Worksheets

- Health District Information
- Fee Categories
- Health District Optional Services
- Operation and Maintenance Tracking
- Optional Board Action Items

# Health District Information Worksheet

Sewage Treatment Systems Program Survey: Health District Information Worksheet

Name/Title of person filling out	
Date	

Health District		
Address		
City	Zip Code	County
Phone		Email Address

Health Commissioner	Phone No.
Email Address	

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Director-of-Environmental-Health:¤	Phone-No.¤	¤
¤	¤	¤
Email-Address:¤	¤	¤
¤	¤	¤

¶

Sewage-Program-Supervisor¤	Phone-No.¤	¤
¤	¤	¤
Email-Address:¤	¤	¤
¤	¤	¤

¶

Total-Number-of-Sanitarians-working-in-the-Sewage-Treatment-Systems-Program:¤	¤
¤	¤

"

In-addition-to-the-Director,-provide-the-following-information-for-sanitarians-that-work-in-the-Sewage-Treatment-Systems-Program:¤			¤
Name:¤	RS/SIT-Number¤	Registration-confirmed-by-Surveyor-(Y/N)?¶ (For-ODH-use)¤	¤
¤	¤	¤	¤
¤	¤	¤	¤
¤	¤	¤	¤
¤	¤	¤	¤
¤	¤	¤	¤



# Fee Category Worksheet

Sewage Treatment Systems Program Survey: Fee Category Worksheet



Fee Category	Amount	Date Adopted
1. An application for site review of an HSTS, SFOSTS or GWRS		
2. An application for a soil evaluation for an HSTS, SFOSTS or GWRS		
3. An application for a design for an HSTS, SFOSTS, or GWRS		
4. Permit for the installation of a new or replacement HSTS and GWRS		
5. Permit for the alteration of an existing HSTS and GWRS		
6. Permit for the installation of a new or replacement SFOSTS		
7. Permit for the		

# Health District Optional Services Worksheet

Health District	
Name/Title	
Date	

Has your health district offered the services of Soil Evaluation during the survey period?

If yes, please identify the sanitarians authorized by the board of health to perform soil evaluations and have the resolution(s) from the BOH authorizing each sanitarian available for review during the survey.

Has your health district offered the services of STS Design during the survey period?

If yes, please identify the sanitarians who design systems and be prepared to provide examples of systems each has designed if they are not selected in the file review survey subset.

Has your health district permitted any sites for land application of septage during the survey period?

If yes, please provide the addresses of all land application sites and be prepared to pull at least one file for review.

# Health District Optional Services

- Sanitarians authorized by the BOH to perform soil evaluations?
  - BOH resolution(s) naming individual sanitarians authorized to perform soil evaluations
- Offered STS Design Services?
- Permitted Land Application Sites?
- Lot Splits or Subdivision Applications?

# Operation & Maintenance Tracking Worksheet

System Type	Operation and Maintenance Terms and Conditions/Requirements	Frequency of Service	Permit Term	Permit Renewal Fee
<u>Example</u>  NPDES Aerobic Treatment Systems	<u>Example</u>  1. Evaluate final effluent quality yearly to determine if standards are met 2. Comply with all manufacturer requirements for NPDES systems 3. Comply with all EPA permit requirements including once a year sampling of effluent 4. Check fail safe systems where applicable	<u>Example</u>  2 times per year	<u>Example</u>  1 year	<u>Example</u>  \$50.00

# Optional Board Items Worksheet

Rule	Action
3701-29-02 (H)	Assumption of regulatory authority over small flows on-site sewage treatment systems (SFOSTS) in accordance with ORC 3718.021.
3701-29-03 (G)	Waiver of registration fee and/or CEU requirement for service provider servicing only his/her own STS.
3701-29-03 (H)	Waiver of registration fee, liability insurance, and/or surety bond for person installing STS only for his/her personal residence.

3701-29-07 (A)(4)	Endorsement of sanitarian(s) to conduct soil evaluations within the jurisdiction of the board of health. This endorsement is required if the sanitarian will be performing the soil evaluation as a service to applicant.
3701-29-14 (C)	Nutrient reduction standards – may be established by director or board of health when there is a significant risk of nutrient contamination to surface or ground water.

3701-29-15 (G)	Establishment of local vertical separation distance (VSD) to seasonal water between six and eighteen inches, required in-situ soil within infiltrative distance (minimum six inches). If not established by board of health, VSD to seasonal water will default to 12 inches, and minimum in-situ soil requirement of 8 inches within the infiltrative distance.
3701-29-15 (H)	Establishment of VSD to seasonal water between zero and six inches for pretreated effluent (<1,000 cfu/100 mL).
3701-29-17 (B)	Adoption of permit requirement for Type 1 gray water recycling systems.
3701-29-19 (E)	Establish allowance/prohibition for registered service providers to collect samples for NPDES annual sampling requirements.

3701-29-19 (F)	Establishment of a household sewage treatment district, if applicable.
3701-29-20 (A)	Establishment of rules prohibiting, restricting or limiting land application of septage.
3701-29-21 (E)	Requirement of permit for abandonment of STS

# Logistics

- Meeting with health commissioner, environmental health director, or designated representative
  - Answer any questions
  - Logistics
  - Completed worksheets provided to surveyor

# Administrative Review

- Contractor Registration
- Permit/Location File Completeness Review
- STS Design Review
- Operation & Maintenance Tracking Permits
- Subdivisions & New Lots
- Optional Services
  - Soil Evaluations
  - STS Designs
  - Land Application of Septage



# Administrative

- Information from the worksheets regarding fees and board actions will be reviewed
- Contractor Registration worksheet will be used to select the contractor registration files to review.

# Contractor Registration Files

- Sample Size
- Registration documents on file
  - Application
  - Testing
  - General Liability Insurance
  - Surety Bond
  - CE
  - System specific training/certification
  - Septage Hauler Vehicle Permits
  - Vehicle inspection reports
  - Enforcement Actions

[illegible]

# Permit/Location File Completeness

- Sample Size

Number Issued	Number to be Reviewed		Number Issued	Number to be Reviewed
1 - 24	All		131 -147	35
25 - 54	25		148 – 167	36
55 – 59	26		168 – 191	37
60 – 64	27		192 – 222	38
65 – 71	28		223 – 262	39
71 – 78	29		263 – 316	40
79 – 86	30		317 – 394	41
87 – 94	31		395 – 514	42
95 – 105	32		515 – 725	43
106 – 116	33		726 – 1192	44
117 – 130	34		1193 – 5000	45

# Permit Documents on File

- Permit to Install, Alter, (or Abandon) a STS
- Approval or disapproval of the permit application
  - Verification that approved site review matches permit
- Installation inspections, approval or disapproval of the installation
- As-Built
- 12-month inspection

# Site Review

- Local site review application
- Soil evaluation is complete
  - Verification of soil evaluator qualifications

# Design Completeness Review

- Review interpretation of soil evaluation for compatible design selection
  - VSD requirements met
  - SILR
  - HLLR
  - Soil depth credits applied correctly (VSD, not in-situ)
  - Engineered Drainage (if applicable)

# Design Completeness Review

- Incremental repair/replacement plan\*
- Design approval or disapproval
  - Necessary documentation for NPDES coverage\*
- STS abandonment\*
- Operation and Maintenance Tracking Permit

\* If applicable





## t/Location File Completeness Review

	12. Site Review: Soil evaluation qualified
	13. Design: Required VSD met
	14. Design: Required in situ met
	15. Design: Correct SILR
	16. Design: Correct HLLR
	17. Design: Soil Depth Credits applied only to VSD and not in-situ soil
	18. Design: Engineered Drainage appropriately used in design (if applicable)
	19. Design: Incremental repair/replacement plan in accordance with OAC 3701-29-09 (C) (if applicable)
	20. Final Approval of installation documented
	21. Abandonment permit/report on file (if required by permit activities)
	22. Septage pumping report on file (if requires by permit activities)
	23. Operations permit issued
	24. Issued operation permit appropriate to system type

<b>Attachment 2</b>	<b>Sewage Treatment System Administrative Review</b>	
<i>Form Rev. March 2018</i>	<b>LHD Permit/Location File Completeness Review</b>	

<b>J. PERMITS</b>	<b>Score</b>	<b>Possible Points</b>	<b>Comments: Note any issues observed</b>
1. Does the department have permit applications on file?			The health district must document verification that the permit application information and on-site conditions matches the site review.
2. Are the permit applications complete?			Permit audit number <###> was not available for review. A permit application is incomplete without an approved site review and soil evaluation report (unless waived in accordance with paragraph (A)(1)(b) of rule 3701-29-09.
3. Documentation of approval/disapproval of the permit			Have all permits/applications been validated by a sanitarian
4. Approved site-review matches permit			Identify deviations from approved site review and permit issued.

# STS Design In Depth Review

- Review of at least one STS design of each type permitted by the health district

<b>Attachment 4</b>	<b>Sewage Treatment System Administrative Review</b>	<b>Address:</b>
<i>Form Rev. March 2018</i>	<b>LHD System Specific File Review</b>	Street Address
	<b>Specific System Type Observed: Pretreatment to Leaching</b>	City, OH Zip Code

I. NPDES PERMITS/DESIGNS ONLY	Score	Possible Points	Comments: Note any issues observed
DISCHARGING SYSTEMS: Has coverage under the Household NPDES General Permit been granted by Ohio EPA?			Documentation of coverage under the Household NPDES General Permit must be included with the permit application.
DISCHARGING SYSTEMS: Have all on-site technologies permissible in rule been considered and determined to not be feasible for the site? (Documentation required)			Ohio EPA will not grant coverage under the Household NPDES General Permit if an on-site (soil-based) STS is feasible for the site.
STS DESIGNS	Score	Possible Points	Comments: Note any issues observed
1. Does the design include sufficient information about the dwelling/structure to be served by the STS?			Design must identify the building use to determine whether it is a HSTS or SFSTS and provide information to estimate the daily design flow and waste strength.

# Operation & Maintenance Tracking Permits

- Review of the worksheet provided
- Discussion of the current status of the program
- O&M Tracking permits in location files
- Surveyor may request examples of specific types of operation permits

- All systems under permit since January 1, 2015 enrolled
- All systems that have NPDES coverage from Ohio EPA enrolled
- Implementation plan to enroll existing systems
- Permit fee is separate from inspection fee

- Records organized by address
- Terms and conditions of permits for varying technologies/system types
- Mechanism for tracking maintenance activities
- System owner option to provide proof of maintenance in lieu of LHD inspection

# Subdivisions & New Lots

- Sample size
  - If subdivision application(s) received during the survey period, at least one will be reviewed
  - If new lot application(s) received during the survey period, at least one will be reviewed



- Local application form
- Soil evaluation
- Scaled Drawing with acreage, lot lines, site information, STS options (No NPDES)
- Order 1 or 2 soil surveys (as applicable)
- Written Ohio EPA consultation (25+ lots)
- BOH approval or disapproval

<b>Attachment 3</b>	<b>Sewage Treatment System Administrative Review</b>	<b>Lot Split Review</b>
<i>Form Rev. March 2018</i>	<b>Subdivisions &amp; New Lots Review</b>	Subdivision Name or Lot Split Address
		City, OH Zip Code

<b>I. SUBDIVISIONS &amp; NEW LOTS</b>	<b>Score</b>	<b>Possible Points</b>	<b>Comments: Note any issues observed</b>
1. Local permit applications for subdivision/new lots on file?			If no, which
2. Soil Evaluation(s) complete and on file?			If no, which
3 Do the scaled drawing indicate the total land area and acreage of each proposed lot?			If no, what is missing
4. Does the site drawing provide sufficient detail on proposed lot lines, and site conditions (e.g. vegetation, drainage features, site disturbances, etc.)?			If no, what is missing

# Optional Services

- Soil Evaluation
- STS Design
- Land Application of Septage

# Optional: Soil Evaluation

- List of the individual sanitarian(s) approved by BOH to conduct soil evaluations
  - BOH resolution(s) identifying the individual sanitarian(s)
- Sample Size
  - At least one completed by each sanitarian performing soil evaluations

# Review for Completeness

- Soil evaluation form used
- NRCS nomenclature used to describe site and soil characteristics
- Limiting conditions properly identified and documented
- Site drawing complete

<b>Attachment 7</b>	<b>Sewage Treatment System Administrative Review</b>	Sanitarian (Soil Evaluator)
<i>Form Rev. March 2018</i>	<b>Optional Services: Soil Evaluation</b>	



<b>I. Soil Evaluation</b>	<b>Score</b>	<b>Possible Points</b>	<b>Comments: Note any issues observed</b>
1. Did the Board of Health approve the sanitarian to conduct soil evaluations?			
2. Is the correct form used for soil evaluations?			
3. Is the Soil Evaluation Form completely filled out?			
4. Is NRCS nomenclature used on the soil evaluation form?			
5. Are the Limiting Conditions properly identified and documented on the soil evaluation form?			
<b>II. Site Drawing</b>	<b>Score</b>	<b>Possible Points</b>	<b>Comments: Note any issues observed</b>

# Optional: STS Design

- List of sanitarians who perform design services
- Sample size
  - At least one completed by each sanitarian performing STS design services

# Design Review

- Description of dwelling or building to be served
- Designation of DDF and soil loading rates used in the design (rationale for variance)
- Description of system materials, devices, & components
- Construction and installation notes (including manufacturer installation instructions)



- Operation & Maintenance requirements, manuals and instructions
- Complete site drawing
  - Location of all STS components & devices
  - Designation of replacement area
  - Horizontal isolation distance documentation
  - Location of soil borings/description

- Plan view drawing
  - Location and configuration of STS with soil absorption area dimensions and elevations
  - Ground surface elevations & component elevations
- Pump selection information\*
- Pressure distribution network calculations and description\*

\*as applicable

<b>Attachment 6</b>	<b>Sewage Treatment System Administrative Review</b>	Sanitarian's Name (Designer)
<i>Form Rev. March 2018</i>	<b>Optional Services: STS Designs</b>	

<b>I. STS Designs</b>	<b>Score</b>	<b>Possible Points</b>	<b>Comments: Note any issues observed</b>
1. Is there a description of dwelling/building being served in the design?			
2. Is there designation of the design flow or the soil loading rates used in the design?			
3. If the design varies from standards in rule, is there documentation of the appropriate rationale?			
4. Does the design include a description of the materials, devices, and components to be used?			
5. Does the design include construction and installation notes, including manufacturer installation instructions (as appropriate)?			
6. Does the design include the O & M requirements, manuals and instructions?			
<b>II. Site Drawing</b>	<b>Score</b>	<b>Possible Points</b>	<b>Comments: Note any issues observed</b>

# Optional: Land Application

- List of Permitted Land Application Sites
- Sample Size
  - At least one permitted site will be reviewed

- Written permission from property owner
- Order 2 soil survey
- Site inspection completed
- Soil testing compliance (every two years)
- Permit expiration one-year from date of issuance
- Site meets horizontal isolation distances

- Methods of pathogen reduction and vector control
- Calculations of nitrogen application rate appropriate to site vegetation
- Requires trash screening and disposal
- Review of any enforcement actions

<b>Attachment 5</b>	<b>Sewage Treatment System Administrative Review</b>	<b>Address</b>
<i>Form Rev. March 2018</i>	<b>Optional Services: Land Application</b>	Street Address/Parcel Number
		City, OH Zip Code

<b>J. Land Application of Domestic Septage</b>	<b>Score</b>	<b>Possible Points</b>	<b>Comments: Note any issues observed</b>
1. Do all known land application sites have a valid permit from the health department in accordance with OAC 3701-29-20(E)?			If no, which sites do not have a valid permit. Is there enforcement action occurring?
2a. Do all permitted land application sites have written permission from the property owner as required by OAC 3701-29-20(E)(1)(c)?			If no, which do not have written permission
2b. Do all permitted land application sites have information about presence of field tile, ditches, storm sewers, streams, and other drainage conveyances within the application area as required by OAC 3701-29-20(E)(1)(c)?			If no, which do not and what information is missing
3a. Do all land application sites permit applications have an order two soil survey with the permit application in accordance with OAC 3701-29-20(E)(1)(d)?			If no, which do not
3b. Do all permitted land application sites have < 8% slope, at least three feet of soil above groundwater/bedrock and free of conditions that could allow land application to cause contamination or run-off in accordance with OAC 3701-29-20(E)(1)(d)?			If no, which do not
4a. Has health department documented on-site inspection of the land application sites to demonstrate compliance with OAC 3701-29-20(E)(2)?			If no, which do not

# Variances

## III. VARIANCES

1. Has the department established a process for reviewing, approving/disapproving variances?
2. If the variance were issued, was the appropriate process followed including a written request from the system owner, field and office review by staff, and board of health action? Do the variances issued meet the intent of rules and practice of public health?
3. Is a list of variances being submitted to ODH per OAC 3701-29-22?



# Enforcement

## II. ENFORCEMENT / INVESTIGATIONS

1. Have violations been identified and follow up conducted as necessary?

2. Is there written correspondence on file regarding each violation?

3. Did the Board of Health take action regarding the violation and is it on file?

# Field Evaluation

- Observation of a 12-month inspection
- Discussion of site review and installation inspection activities on-site
- Verification that staff has access and is knowledgeable of the appropriate tools

# STS Program

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