Minnesota Pollution Control Agency
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St. Paul, MN 55155-4194

SSTS Service Provider Task Analysis

Subsurface Sewage Treatment System (SSTS) Program

Doc Type: Task Analysis

Service Provider Task Analysis

A specialty area task analysis document is an outline of job tasks that certified professionals must be able to competently complete. It is a working document that was developed and is periodically maintained by a steering committee of experts, which is validated and prioritized by a broader group of practicing professionals. It is the foundation of Minnesota's SSTS specialty area certification program and provides the basis for curriculum objectives and exam competencies. It includes tasks authorized by rule and those determined to be necessary to conduct authorized work in a safe and lawful manner. It is not meant to represent a required order of operations and should not be used as a procedural checklist.

Minn R. 7083.0780 subp. 1: Authorization. A licensed service provider business is authorized to measure scum and sludge depths for the accumulation of solids; identify problems related to sewage tanks, baffles, effluent screens, maintenance hole covers, extensions, and pumps and make the repairs; evaluate sewage tanks, dosing chambers, distribution devices, valve boxes, or drop boxes for leakage; and clean supply pipes and distribution pipes. Service provider businesses are also authorized to assess, adjust, and service systems for proper operation; take, preserve, store, and ship samples for analysis; interpret sampling results and report results for an SSTS; and operate sewage collections systems discharging to an SSTS.

Minn R. 7083.0780 subp. 2: Responsibilities. Service provider licensees must: (A) report sampling results, operational observations, system adjustments, and other management activities in compliance with local ordinances, management plans, or operating permit requirements; and (B) observe and provide written reports of any noncompliance to the system owner and the local unit of government within 30 days.

Minn R. 7083.0780 subp.3: Certified Service Providers. Certified service providers must provide proper training, daily review of work, and periodic observation of work conducted by noncertified individuals. Certified service providers are responsible for conducting or supervising: (A) the measurement of scum and sludge depths for the accumulation of solids; (B) the making of sensory observations if nondomestic wastes have been discharged into the system; (C) the identification of problems and watertightness related to sewage tanks; and (D) the assessment of the condition of baffles, effluent screens, maintenance hole covers, and extensions.

Minn R. 7083.0780 subp.4: Certified Service Providers. Certified service providers must personally: (A) assess the operational status and system performance by sampling, measuring, and observing in compliance with the management plan or operating permit; (B) preserve, store, and ship samples for analysis and interpret sampling results; (C) adjust, repair, or replace components to bring the system into proper operational compliance; (D) assess the operational status of sewage collection systems and adjust, repair, or replace components to bring the system into proper operational status; and (E) complete and submit any necessary reporting to the system owner and the local unit of government.

I.	Participate in certification program		
	I.A	Complete training	
	I.B	Pass certification exam	
	I.C	Apply for certification	
	I.D	Complete continuing education	
II.	Obtain Service Provider business license		
	II.A	Apply for a business license	
		II.A.1	Employ a Designated Certified Individual (DCI)
		II.A.2	Maintain appropriate SSTS surety bond and general liability insurance
		II.A.3	Remit appropriate business license fee
	II.B	Renew business license	
III.	Communicate with clients, colleagues, and authorities		
	III.A	Contact local unit of government program with SSTS jurisdiction	
		III.A.1	Obtain design report, as-built drawing, management plan, operating permit, past service records, and other pertinent site documentation

		III.A.2	Be knowledgeable of repair, replacement, and upgrade requirements in local ordinances
		III.A.3	Determine compliance and management expectations from local authority
		III.A.4	Establish reporting protocol for compliance management activities
	III.B	Access resources to identify and reconcile conflicts and concerns	
		III.B.1	Contact Minnesota Pollution Control Agency representative
		III.B.2	Contact Minnesota Onsite Wastewater Association representative
		III.B.3	Contact SSTS Advisory Committee representative
		III.B.4	Contact University of Minnesota Onsite Sewage Treatment Program
		III.B.5	Contact Minnesota Department of Health (MDH) well program representative
	III.C	Properly delegate work between certified and noncertified workers	
		III.C.1	Provide proper training, daily work review, and periodic work observation of noncertified individuals
		III.C.2	Ensure Designated Certified Individual (DCI) personally conducts tasks as specified in rule
	III.D	Prepare to conduct a service visit	
		III.D.1	Alert Gopher State One Call
		III.D.2	Establish contact with a certified laboratory
		III.D.3	Speak with owner about system, use, and concerns
		III.D.4	Plan management activities from local program requirements, operating permit requirements, management plan, and system service history
		III.D.5	Log and load vehicle with necessary tools, equipment, personal protective equipment, existing records, and operational checklists to complete
		III.D.6	Educate owner about management activities, management frequency, and best practices
IV.	Conduct preliminary assessment		
	IV.A	Using existing documentation, complete system description	
	IV.B	If existing documentation is unavailable, contact component manufacturer and complete system description forms (Form 1-1) from *CIDWT Service Provider Manual* at first visit	
		IV.B.1	Record facility details
		IV.B.2	Record site details
		IV.B.3	Complete holding tank description
		IV.B.4	Complete septic tank description
		IV.B.5	Complete flow equalization tank description
		IV.B.6	Complete dosing pump tank description
		IV.B.7	Complete aerobic treatment unit (ATU) description
		IV.B.8	Complete single pass filter description
		IV.B.9	Complete recirculating filter description
		IV.B.10	Complete constructed wetland description
		IV.B.11	Complete disinfection unit description
		IV.B.12	Complete gravity distribution description
		IV.B.13	Complete pressurized drainfield description
		IV.B.14	Complete pressure mound distribution description
		IV.B.15	Complete drip distribution description
		IV.B.16	Sketch system
	IV.C	If the system serves an other establishment, complete a Commercial Wastewater Source Evaluation from *CIDWT High Strength and Hydraulic Loading Manual*	
		IV.C.1	Document facility operation
		IV.C.2	Document water use habits

		IV.C.3	Document onsite wastewater treatment system details	
	IV.D	Complete system evaluation (Form 1-2) from *CIDWT Service Provider Manual*		
		IV.D.1	Determine design flow	
		IV.D.2	Determine actual flow to system	
	IV.E	Complete site assessment (Form 4-1) *from CIDWT Service Provider Manual*		
	IV.F	Determine if any improvements or upgrades to system are needed to allow for necessary service activities		
	IV.G	Determine and perform if any compliance management activities are overdue		
	IV.H	Evaluate risks to develop or modify necessary service activities and frequencies		
	IV.I	Create a service contract with customer		
V	Conduct service visit according to operating permit or management plan requirements and system needs			
	V.A	Use available operational checklists from the *CIDWT Service Provider Manual* to guide and record routine operation and maintenance on system components. Identifying each as acceptable or unacceptable		
		V.A.1	Assess and/or certify sewage tank(s) as structurally sound and watertight	
		V.A.2	Assess and/or certify maintenance hole risers and covers as structurally sound and safe	
		V.A.3	Assess system operation based on use and design	
		V.A.4	Assess, operate, and coordinate maintenance on holding tank (Form 5-1)	
		V.A.5	Assess, operate, and coordinate maintenance on grease trap (Form 5-2)	
		V.A.6	Assess, operate, and coordinate maintenance on septic tank (Form 5-2)	
		V.A.7	Assess, operate, and coordinate maintenance on pump tank (Form 6-1)	
		V.A.8	Assess, operate, and maintain demand-dosed pump/control system (Form 6-2)	
		V.A.9	Assess, operate, and maintain time-dosed pump/control system (Form 6-3)	
		V.A.10	Assess, operate, and maintain gravity distribution (Form 8-1)	
		V.A.11	Assess, operate, and maintain pressure distribution (Form 8-3)	
		V.A.12	Assess, operate, and maintain at-grades & mounds (Form 8-4a)	
		V.A.13	Assess, operate, and maintain bottomless peat filter (Form 8-4b)	
		V.A.14	Assess, operate, and maintain drip distribution (Form 8-5)	
		V.A.15	Assess, operate, and maintain aerobic treatment unit (Form 7-2)	
			V.A.15.1	Coordinate with Maintainer how and when to pump aerobic treatment unit tanks
		V.A.16	Assess, operate, and maintain media filter (Form 7-1)	
		V.A.17	Assess, operate, and maintain constructed wetland (Form 7-3)	
		V.A.18	Assess, operate, and maintain chlorination disinfection unit (Form 7-5)	
		V.A.19	Assess, operate, and maintain UV disinfection unit (Form 7-6)	
		V.A.20	Assess, operate, and coordinate maintenance on privy	
		V.A.21	Assess, operate, and maintain building sewer, collection system, and supply pipes	
			V.A.21.A	Evaluate flow and Inflow/Infiltration
			V.A.21.B	Assess, operate, and maintain gravity piping
			V.A.21.C	Assess, operate, and maintain pressure piping
		V.A.22	Assess, operate, and maintain alarms, floats, sensors, timers, controls, and flow measurement device	
		V.A.23	Assess, operate, and maintain water table monitoring device(s)	
		V.A.24	Assess and operate monitoring well(s)	
		V.A.25	Assess, operate, and coordinate maintenance on Type V SSTS	
	V.B	Complete system monitoring to meet regulatory operational requirements		
		V.B.1	Collect samples from appropriate location identified in operating permit or manufacturer recommendation	

			V.B.1.A	Preserve, store, and ship samples according to certified laboratory standards
			V.B.1.B	Record chain of custody
		V.B.2	Perform field tests as needed, including but not limited to effluent odor, color, temperature, DO, pH, scum and sludge accumulation, settleability, squirt height, and water table level	
		V.B.3	Calculate actual flow rate	
		V.B.4	Interpret field test and lab sample results	
		V.B.5	If field sample results unacceptable, troubleshoot system operation and employ contingency plan from operating permit	
	V.C	Troubleshoot (identify cause of malfunction) system components that are deemed unacceptable		
		V.C.1	Troubleshoot holding tank	
		V.C.2	Troubleshoot grease trap	
		V.C.3	Troubleshoot septic tank	
		V.C.4	Troubleshoot pump tank	
		V.C.5	Troubleshoot demand-dosed pump/control system	
		V.C.6	Troubleshoot time-dosed pump/control system	
		V.C.7	Troubleshoot gravity distribution	
		V.C.8	Troubleshoot pressure distribution	
		V.C.9	Troubleshoot at-grades & mounds	
		V.C.10	Troubleshoot bottomless peat filter	
		V.C.11	Troubleshoot drip distribution	
		V.C.12	Troubleshoot aerobic treatment unit	
		V.C.13	Troubleshoot media filter	
		V.C.14	Troubleshoot constructed wetland	
		V.C.15	Troubleshoot chlorination disinfection unit	
		V.C.16	Troubleshoot UV disinfection unit	
		V.C.17	Troubleshoot privy	
		V.C.18	Troubleshoot building sewer, collection system, and supply pipe	
			V.C.18.A	Troubleshoot gravity piping
			V.C.18.B	Troubleshoot pressure piping
		V.C.19	Troubleshoot alarms, floats, sensors, timers, controls, and flow measurement device	
		V.C.20	Troubleshoot water table monitoring device(s)	
		V.C.21	Troubleshoot monitoring well(s)	
		V.C.22	Troubleshoot Type V SSTS	
	V.D	Determine if adjustment, repair, replacement, or upgrade is recommended or corrective action is required		
		V.D.1	Defer duties outside of scope of practice to appropriately licensed designer, installer, maintainer, inspector, electrician, plumber, or other licensed professional	
		V.D.2	Comply with repair, replacement, remediation, upgrade, and corrective action requirements in local ordinances	
		V.D.3	Properly abandon system with no future intent for use	
			V.D.3.A	Coordinate proper tank abandonment
			V.D.3.B	Properly dispose or cover contaminated materials
			V.D.3.C	Complete, sign, and submit a record of abandonment to local program within 90 days
		V.D.4	Repair, replace, or upgrade maintenance hole riser and cover	
		V.D.5	Repair, replace, or upgrade sewage tank baffle(s)	
		V.D.6	Repair, replace, or upgrade sewage tank effluent screen	

		V.D.7	Repair, replace, or upgrade sewage tank inspection pipe
		V.D.8	Adjust, repair, or replace sewage pump
		V.D.9	Adjust, repair, or replace siphon
		V.D.10	Adjust or repair at-grades & mounds
		V.D.11	Adjust or repair peat filter and replace media
		V.D.12	Adjust or repair drip distribution
		V.D.13	Adjust or repair aerobic treatment unit
		V.D.14	Adjust or repair media filter
		V.D.15	Adjust or repair constructed wetland and replace media and manage vegetation
		V.D.16	Adjust or repair chlorination disinfection unit and add chlorine
		V.D.17	Adjust or repair UV disinfection unit and replace bulbs
		V.D.18	Adjust or repair privy
		V.D.19	Steam or jet building sewer, collection system, supply pipe, and distribution system
		V.D.20	Adjust, repair, replace, or upgrade alarms, floats, sensors, timers, controls, and flow measurement device
		V.D.21	Adjust or repair water table monitoring device
		V.D.22	Notify MDH and licensed well contractor if monitoring well is in need of adjustment, repair, replacement, upgrade, or corrective action
		V.D.23	Notify appropriately licensed AELSLAGID professional if Type V is in need of adjustment, repair, replacement, upgrade, or corrective action
	V.E	Complete service visit	
		V.E.1	Close and secure tank(s) and other components
		V.E.2	Restore property
		V.E.3	Ensure all controls are restored to proper operational settings
		V.E.4	Adjust recommended service activities and frequencies from service activity results
		V.E.5	Notify owner of necessary follow-up, timelines, and next visit
VI.	Keep, maintain, and share adequate records and reports		
	VI.A	Deem overall system condition as acceptable or unacceptable	
	VI.B	Record and report sampling results, operational observations, system adjustments, and management activities in compliance with local ordinance, management plan, operating permit, or monitoring and mitigation plan requirements, providing copies to permitting authority and system owner	
	VI.C	Provide recommendations to operating permit requirements based on system performance	
	VI.D	Provide written reports of noncompliance to homeowner and local unit of government within 30 days	
	VI.E	Provide certified signature on all operational status determinations and compliance management activities	

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

A. Complete Training

Subtasks

	List sequenced order of steps to complete the master task
1	Complete Introduction to Onsite Systems
2	Complete Service Provider Course

Knowledge

	Identify knowledge necessary to complete the subtasks
	MPCA Requirements
1	7083.1020 Subp.2.A
2	7083.1030 Subp.1.A
3	7083.1030 Subp.1.B
4	7083.1030 Subp.2
	Learning Objectives

Attitudes

Describe how you must behave to complete the subtasks

Interpersonal Skills

Identify the skills necessary for interacting with other people in order to complete the subtasks

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

B. Pass Certification Exam

Subtasks

	List sequenced order of steps to complete the master task
1	Pass Introduction to Onsite Systems Exam
2	Pass Service Provider Exam

Knowledge

	Identify knowledge necessary to complete the subtasks
	MPCA Requirements
1	7083.1020 Subp.2.B
2	7083.1040 Subp.1
3	7083.1040 Subp.3
	Learning Objectives

Attitudes

Describe how you must behave to complete the subtasks

Interpersonal Skills

Identify the skills necessary for interacting with other people in order to complete the subtasks

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

C. Apply for Certification

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	List sequenced order of steps to complete the master task
1	Complete MPCA Form R
2	Submit list of passed exams
3	Submit list of completed training courses

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	Identify knowledge necessary to complete the subtasks
	MPCA Requirements
1	7080.1670
2	7083.0730 Subp.A
3	7083.0730 Subp.B
4	7083.0730 Subp.C
5	7083.0730 Subp.3.A
6	7083.0730 Subp.3.B
7	7083.0730 Subp.3.C
8	7083.0730 Subp.3.D
9	7083.0780 Subp.4.A
10	7083.0780 Subp.4.B
11	7083.0780 Subp.4.C
12	7083.0780 Subp.4.D
13	7083.0780 Subp.4.E
14	7083.1010
15	7083.1020 Subp.1.H
16	7083.1020 Subp.2.A
17	7083.1020 Subp.2.B
18	7083.1020 Subp.2.C
19	7083.1020 Subp.2.D
20	7083.1020 Subp.3
21	7083.1020 Subp.4
22	7083.1040 Subp.2
23	7083.2020 Subp.2.A
24	7083.2020 Subp.2.B
25	7083.2020 Subp.2.C
26	7083.2020 Subp.2.D
27	7083.2020 Subp.2.E
28	7083.2020 Subp.3.A
29	7083.2020 Subp.3.B

Attitudes

Describe how you must behave to complete the subtasks

Identify the skills necessary for interacting with other people in order to complete the subtasks

Subtas		Knowlec			Interpersonal Skills
			30	7083.2020 Subp.3.C	
			31	7083.2020 Subp.3.D	
			32	7083.2020 Subp.4.A	
			33	7083.2020 Subp.4.B	
			34	7083.2020 Subp.4.C	
			35	7083.2020 Subp.6	
				Learning Objectives	

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

D. Complete Continuing Education

Subtasks

	List sequenced order of steps to complete the master task
1	Complete 12 hours (at least 6 Direct) of continuing education training related to SSTS every three years

Knowledge

	Identify knowledge necessary to complete the subtasks
	MPCA Requirements
1	7083.1020 Subp.2.D
2	7083.1040 Subp.2
3	7083.1060 Subp.1.A
4	7083.1060 Subp.1.C
5	7083.1060 Subp.1.D
6	7083.1060 Subp.1.E
7	7083.1060 Subp.2
	Learning Objectives

Attitudes

Describe how you must behave to complete the subtasks

Interpersonal Skills

Identify the skills necessary for interacting with other people in order to complete the subtasks

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

II. Obtain Service Provider Business License

	List sequenced order of steps to complete the master task
A	Complete Application
1	Complete License Application Form
2	Submit Professional Surety Bond & Surety Company Power of Attorney
3	Submit Certificate of General Liability Insurance
4	Submit Workers Compensation Insurance or Complete Letter of Exemption
5	Submit License Fee
6	Submit Certificate of Employment for Designated Certified Professional
B	Submit Renewal & Fee

	Identify knowledge necessary to complete the subtasks
	MPCA Requirements
1	7080.1670
2	7083.0700 Subp.1.A
3	7083.0700 Subp.1.B
4	7083.0700 Subp.1.C
5	7083.0700 Subp.1.D
6	7083.0700 Subp.1.E
7	7083.0700 Subp.1.F
8	7083.0700 Subp.1.G
9	7083.0700 Subp.1.H
10	7083.0700 Subp.2
11	7083.0710
12	7083.0720 Subp.A
13	7083.0720 Subp.B
14	7083.0720 Subp.C
15	7083.0720 Subp.D
16	7083.0720 Subp.E
17	7083.0720 Subp.F(1)
18	7083.0720 Subp.F(2)
19	7083.0720 Subp.F(3)
20	7083.0720 Subp.G
21	7083.0780 Subp.1
22	7083.0780 Subp.2.A
23	7083.0780 Subp.2.B
24	7083.0780 Subp.2.C
25	7083.0780 Subp.3.A
26	7083.0780 Subp.3.B
27	7083.0780 Subp.3.C
28	7083.0780 Subp.3.D
29	7083.0780 Subp.4.A

Attitudes

Describe how you must behave to complete the subtasks

Identify the skills necessary for interacting with other people in order to complete the subtasks

Subtasks		Knowledge			erpersonal Skills	
		30	7083.0780 Subp.4.B			
		31	7083.0780 Subp.4.C			
		32	7083.0780 Subp.4.D			
		33	7083.0780 Subp.4.E			
		34	7083.0800 Subp.A			
		35	7083.0800 Subp.B			
		36	7083.0800 Subp.C			
		37	7083.0900 Subp.1.A			
		38	7083.0900 Subp.1.B			
		39	7083.0900 Subp.1.C			
		40	7083.0900 Subp.2			
		41	7083.0900 Subp.3			
		42	7083.0900 Subp.4			
		43	7083.0900 Subp.5			
		44	7083.0900 Subp.6			
		45	7083.1000 Subp.1.A			
		46	7083.1000 Subp.1.B			
		47	7083.1000 Subp.1.C			
		48	7083.1000 Subp.1.D			
		49	7083.1000 Subp.1.E			
		50	7083.1000 Subp.1.F			
		51	7083.1000 Subp.1.G			
		52	7083.1000 Subp.2.A			
		53	7083.1000 Subp.2.B			
		54	7083.1000 Subp.3			
		55	7083.1000 Subp.4			
		56	7083.1000 Subp.5			
		57	7083.2020 Subp.1.A			
		58	7083.2020 Subp.1.B			
		59	7083.2020 Subp.1.C			
		60	7083.2020 Subp.1.D			
		61	7083.2020 Subp.1.E			
		62	7083.2020 Subp.1.F			
		63	7083.2020 Subp.1.G			
		64	7083.2020 Subp.3.A			
		65	7083.2020 Subp.3.B			

		66	7083.2020 Subp.3.C	Int	
		67	7083.2020 Subp.3.D		
		68	7083.2020 Subp.4.A		
		69	7083.2020 Subp.4.B		
		70	7083.2020 Subp.4.C		
		71	7083.2020 Subp.6		

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

A. Communicate with clients, colleagues, and authorities

Subtasks	List sequenced order of steps to complete the master task	Knowledge	Identify knowledge necessary to complete the subtasks	Attitudes	Describe how you must behave to complete the subtasks
1	Contact local unit of government program with SSTS jurisdiction		**MPCA Requirements**		
2	Access resources to identify and reconcile conflicts and concerns		**Learning Objectives**		
3	Properly delegate work between certified and noncertified workers				
4	Prepare to conduct a service visit				

Interpersonal Skills	Identify the skills necessary for interacting with other people in order to complete the subtasks

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Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

A.Contact local unit of government program with SSTS jurisdiction

Subtasks

	List sequenced order of steps to complete the master task
1	Identify local regulations
2	Access management plan or monitoring & mitigation plan
3	Access past monitoring reports
4	Identify management plan or monitoring & mitigation plan requirements
5	Identify Nitrogen reduction requirement
6	If no plan exists, contact local unit of government
7	Access permit records
8	Access as-built records
9	Be knowledgable of various repair, replacem
	Determine compliance and management ex
	Establish reporting protocol for compliance r

Knowledge

	Identify knowledge necessary to complete the subtasks
	MPCA Requirements
1	7080.1200
2	7080.1500 subp.4(C)
3	7080.2430
4	7080.2150 subp.4
	Learning Objectives
1	Identify types of permitting authorities

Attitudes

Describe how you must behave to complete the subtasks

Interpersonal Skills

Identify the skills necessary for interacting with other people in order to complete the subtasks

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Subsurface Sewage Treatment System Professional Need

B. Access resources to identify and reconci

Subtasks		Knowledge		Attitudes / Interpersonal Skills
	List sequenced order of steps to complete the master task		Identify knowledge necessary to complete the subtasks	
1	Contact Minnesota Pollution Control Agency representative		**MPCA Requirements**	
2	Contact Minnesota Onsite Wastewater Association representative	1		
3	Contact SSTS Advisory Committee representative	2		
4	Contact University of Minnesota Onsite Sewage Treatment Program	3		
		4		
			Learning Objectives	
		1		

-to-Know: Service Provider

ile conflicts and concerns

Describe how you must behave to complete the subtasks

Identify the skills necessary for interacting with other people in order to complete the subtasks

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Subsurface Sewage Treatment System Professional Need

C. Properly delegate work between certified

Subtasks

List sequenced order of steps to complete the master task

1 Provide proper training, daily work review, and periodic work observation of noncertified

2 Ensure DCI personally conducts tasks as specified in rule

Knowledge

Identify knowledge necessary to complete the subtasks

MPCA Requirements

1

2

3

4

Learning Objectives

1

Attitudes

Interpersonal Skills

-to-Know: Service Provider

d and noncertified workers

Describe how you must behave to complete the subtasks

Identify the skills necessary for interacting with other people in order to complete the subtasks

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Subsurface Sewage Treatment System Professional Need

D. Prepare to conduct a service visit

Subtasks

	List sequenced order of steps to complete the master task
1	Alert Gopher State One call
2	Speak with owner about system, use, and concerns
3	Plan management activities from service history, management plan, and operating permit requirements
4	Log and load vehicle with necessary tools, equipment, existing records, and operational checklists to complete
5	Educate owner about management activities, management frequency, and best practices
6	Determine if any improvements or upgrades to system are needed to ensure continued compliance

Knowledge

	Identify knowledge necessary to complete the subtasks
	MPCA Requirements
1	
2	
3	
4	
	Learning Objectives
1	

Attitudes

Interpersonal Skills

-to-Know: Service Provider
Describe how you must behave to complete the subtasks
Identify the skills necessary for interacting with other people in order to complete the subtasks

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

J. Prepare to conduct a service visit

Subtasks

	List sequenced order of steps to complete the master task
1	Gather system evaluation form
2	Gather required system operational checklists
3	Gather suggested tools for operation and maintenance service visits (Appendix C)
4	Gather additional information
a	Copies of Previous Inspections
b	Locator Map Identifying Site Location
c	Item to Document Your Presence at the Site
d	Permit Files

Knowledge

	Identify knowledge necessary to complete the subtasks
	MPCA Requirements
1	7080.2000 subp.E
	Learning Objectives
1	Identify suggested tools for operation and maintenance service visits (Appendix C)
2	Recognize the hazards associated with wastewater and wastewater systems
3	Identify safe work habits
4	Identify safety equipment required to prevent injuries during O&M service visits
5	List the immunizations recommended for professionals working around wastewater
6	Explain the meaning of safety management
7	Describe the causes of accidents and give examples of each
8	List practices that demonstrate good personal hygiene

Attitudes

Describe how you must behave to complete the subtasks

Interpersonal Skills

Identify the skills necessary for interacting with other people in order to complete the subtasks

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

A. Using documentation, complete system description

Subtasks		List sequenced order of steps to complete the master task	Knowledge		Identify knowledge necessary to complete the subtasks	Attitudes	Describe how you must behave to complete the subtasks
	1	Complete Form 1-1. System Description: Section B. System Documentation			**MPCA Requirements**		
	a	Record Date of Installation		1	7080.2430		
	b	Record Installer's Contact Information			**Learning Objectives**		
	c	Record Installer's License Number					
	d	Record Designer's Contact Information					
	e	Record Designer's License Number					
	f	Record Previous Service Provider's Contact Information					
	g	Record Previous Service Provider's License Number					
	h	Record Design flow (gallons per day)					

Interpersonal Skills	Identify the skills necessary for interacting with other people in order to complete the subtasks

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

B. If no documentation available, have system documented by Registered ISTS Professional or Component Manufacturer

Subtasks	List sequenced order of steps to complete the master task	Knowledge	Identify knowledge necessary to complete the subtasks	Attitudes	Describe how you must behave to complete the subtasks
1	Complete Form 1.1 System Description: Section D. No System Documentation Available		**MPCA Requirements**		
			Learning Objectives		

Interpersonal Skills	Identify the skills necessary for interacting with other people in order to complete the subtasks

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

1. Record facility details

Subtasks		List sequenced order of steps to complete the master task	Knowledge	Identify knowledge necessary to complete the subtasks	Attitudes	Describe how you must behave to complete the subtasks
	a	Complete Form 1-1. System Description: Section D. No System Documentation Available		**MPCA Requirements**		
				Learning Objectives		
	i	Record Number of Bedrooms				
	ii	Record Square Footage of Facility				
	iii	Record Number of Current Occupants				
	iv					
	v	Record Design Strength of Biological Oxygen Demand in Milligrams per Liter				
	vi	Record Design Strength of Total Suspended Solids in Milligrams per Liter				
	vii	Record Design Strength of Fats, Oils & Grease in Milligrams per Liter			Interpersonal Skills	Identify the skills necessary for interacting with other people in order
	viii	Record Type of Water Supply				
	ix	If Private Water Supply, Record Lateral Distance from Groundwater Well to Water Supply in Feet				
	x	If Private Water Supply, Record Lateral Distance from Spring to Water Supply in Ft				
	xi	If Private Water Supply, Record Lateral Distance from Surface Water to Water Supply in Feet				
	xii	Record Presence of Garbage Disposal				
	xiii	Record Use of Water Softener, Water Treatment Chemicals or other Water Treatment Devices				
	xiv	Record History of Facility Remodeling Since Original Construction				

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

2. Record site details

Subtasks		List sequenced order of steps to complete the master task	Knowledge	Identify knowledge necessary to complete the subtasks	Attitudes	Describe how you must behave to complete the subtasks
	a	Complete Form 1-1. System Description: Section D. No System Documentation Available		**MPCA Requirements**		
	i	Describe Landscape Position		**Learning Objectives**		
	ii	Determine Type of Drainage				
	iii	Record Presence of and Type of constructed drainage system				
	iv	Describe Vegetation				
	v	Record Presence of Monitoring Well				

Interpersonal Skills	Identify the skills necessary for interacting with other people in order to complete the subtasks

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

3. Complete holding tank description

Subtasks	List sequenced order of steps to complete the master task	Knowledge	Identify knowledge necessary to complete the subtasks	Attitudes	Describe how you must behave to complete the subtasks
a	Complete Form 1-1. System Description: Section D. No System Documentation Available		**MPCA Requirements**		
			Learning Objectives		
i	Record Capacity in Gallons				
ii	Record Tank Material				
iii	Record Tank Manufacturer				
iv	Record Presence of Surface Access				
v	Record GPS Location				
vi	Record Presence of and Type of Alarm				

Interpersonal Skills	Identify the skills necessary for interacting with other people in order to complete the subtasks

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

4. Complete septic tank description

Subtasks		List sequenced order of steps to complete the master task	Knowledge	Identify knowledge necessary to complete the subtasks	Attitudes	Describe how you must behave to complete the subtasks	Interpersonal Skills	Identify the skills necessary for interacting with other people in order to complete the subtasks
	a	Complete Form 1-1. System Description: Section D. No System Documentation Available		**MPCA Requirements**				
				Learning Objectives				
	i	Record Total Capacity in Gallons						
	ii	Record Presence of Compartments						
	iii	If Compartmented, Record Capacities of Each Compartment in Gallons						
	iv	Record Tank Material						
	v	Record Presence of Surface Access						
	vi	Record Tank Manufacturer						
	vii	Record GIS Location						
	viii	Record Presence of Effluent Screen						
	ix	If Effluent Screen Present, Record Manufacturer & Model						

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

5. Complete flow equalization tank description

Minnesota Pollution Control Agency

Subtasks

List sequenced order of steps to complete the master task

a	Complete Form 1-1. System Description: Section D. No System Documentation Available
i	Record Capacity in Gallons
ii	Record Tank Material
iii	Record Presence of Surface Access
iv	Record GIS Location
v	Record Presence of Pump Tank
vi	If Pump Tank Present, Record Tank Manufacturer
vii	Record Presence of Pump
viii	If Pump Present, Record Manufacturer, Model & Horsepower
ix	If Pump Present, Record Dose Frequency in Doses per Day
x	If Pump Present, Record Dose Interval in Seconds per Dose
xi	If Pump Present, Record Dose Volume in
xii	Record Control Panel Manufacturer & Model
xiii	Record Presence of Separate Electrical Circuits for Pump and Alarm
xiv	Record Electrical Breaker Size
xv	Record Alarm Manufacturer
xvi	Record Type of Sensor used for Alarm
xvii	Describe Alarm Operation

Knowledge

Identify knowledge necessary to complete the subtasks

MPCA Requirements

Learning Objectives

Attitudes

Describe how you must behave to complete the subtasks

Interpersonal Skills

Identify the skills necessary for interacting with other people in order to complete the subtasks

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

6. Complete dosing pump tank description

Subtasks	List sequenced order of steps to complete the master task	Knowledge	Identify knowledge necessary to complete the subtasks	Attitudes	Describe how you must behave to complete the subtasks
a	Complete Form 1-1. System Description: Section D. No System Documentation Available		**MPCA Requirements**		
			Learning Objectives		
i	Record Capacity in Gallons				
ii	Record Tank Material				
iii	Record Presence of Surface Access				
iv	Record GIS Location				
v	If Pump Tank Present, Record Manufacturer				
vi	Record Presence of Pump				
vii	Describe Control Method				
viii	If Pump Present, Record Dose Frequency in Doses per Day				
ix	Record Dose Interval in Seconds per Dose				
x	Record Dose Volume in Gallons per Dose				
xi	Record Sensor Panel Manufacturer/Model				
xii	Record Presence of Separate Electrical Circuits for Pump and Alarm				
xiii	Record Electrical Breaker Size				
xiv	Record Alarm Manufacturer				
xv	Record Type of Sensor Used for Alarm				
xvi	Describe Alarm Operation				

Interpersonal Skills	Identify the skills necessary for interacting with other people in order to complete the subtasks

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

7. Complete ATU description

Subtasks		List sequenced order of steps to complete the master task	Knowledge	Identify knowledge necessary to complete the subtasks	Attitudes	Describe how you must behave to complete the subtasks
	a	Complete Form 1-1. System Description: Section D. No System Documentation Available		**MPCA Requirements**		
				Learning Objectives		
	i	Record Treatment Method (Type of ATU)				
	ii	Record Capacity in Gallons per day				
	iii	Record Capacity in Capacity in lbs BOD				
	iv	Record Material				
	v	Record Manufacturer & Model				
	vi	Record Product Serial Number				
	vii	Record Presence of Surface Access				
	viii	Record GIS Location				
	ix	Record Presence of Effluent / Tertiary Filter				
	x	Describe Sludge Return Method				

Interpersonal Skills	Identify the skills necessary for interacting with other people in order to complete the subtasks

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

8. Complete single pass filter description

Subtasks		List sequenced order of steps to complete the master task	Knowledge	Identify knowledge necessary to complete the subtasks	Attitudes	Describe how you must behave to complete the subtasks
	a	Complete Form 1-1. System Description: Section D. No System Documentation Available		**MPCA Requirements**		
				Learning Objectives		
	i	Record Type of Media				
	ii	Record Media Depth in Inches				
	iii	Describe Liner Material				
	iv	Record Filter Size & Dimensions in Square Feet				
	v	Record Type of Access				
	vi	Describe Cover Material				
	vii	Record Presence of Lid Insulation				
	viii	Record Method of Distribution				
	ix	Record Distribution Pipe Diameter in Inches				
	x	Describe Method of Flow Control			Interpersonal Skills	Identify the skills necessary for interacting with other people in order to complete the subtasks
	xi	If Orifice Used for Flow Control, Describe Position				
	xii	Record Number of Flow Controls				
	xiii	Record Squirt Height / Operating head in Inches				
	xiv	Record Presence of Clean Outs / Inspection Ports				
	xv	If Clean Outs / Inspection Ports Present,				
	xvi	Record Presence of Clean Out Surface Access				
	xvii	Describe Filtrate Collection System Operation				
	xviii	Record Presence of Forced Aeration				
	xix	Describe Forced Aeration Operation				

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

9. Complete recirculating filter description

Subtasks		List sequenced order of steps to complete the master task
	a	Complete Form 1-1. System Description: Section D. No System Documentation Available
	i	Record Type of Media
	ii	Record Media Depth in Inches
	iii	Describe Liner Material
	iv	Describe Recirculation Method
	v	Record Filter Size & Dimensions in Square Feet
	vi	Record Type of Access
	vii	Describe Cover Material
	viii	Record Presence of Lid Insulation
	ix	Record Distribution Pipe Diameter in Inches
	x	Record Method of Flow Control
	xi	If Orifice Used for Flow Control, Describe Position
	xii	Record Flow Control Diameter in Inches
	xiii	Record Squirt Height / Operating Head in Inches
	xiv	Record Presence of Clean Outs / Inspection Ports
	xv	If Clean Outs / Inspection Ports Present, Record Number
	xvi	Record Presence of Clean Out Surface Access
	xvii	Describe Filtrate Collection System Operation
	xviii	Record Presence of Forced Aeration
	xix	Describe Forced Aeration Operation

Knowledge	Identify knowledge necessary to complete the subtasks
	MPCA Requirements
	Learning Objectives

Attitudes	Describe how you must behave to complete the subtasks

Interpersonal Skills	Identify the skills necessary for interacting with other people in order to complete the subtasks

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

10. Complete constructed wetland description

ks	List sequenced order of steps to complete the master task	dge	Identify knowledge necessary to complete the subtasks	Attitudes	Describe how you must behave to complete the subtasks
a	Complete Form 1-1. System Description: Section D. No System Documentation Available		**MPCA Requirements**		
			Learning Objectives		
i	Record Type of Bed Media				
ii	Record Number of Cells				
iii	Record Media Depth in Inches				
iv	Record Water Depth in Inches				
v	Describe Liner Material				
vi	Describe Border Material				
vii	Record Wetland Size & Dimensions in Square Ft				
viii	Record Wetland Length to Width Ratio				
ix	Record Distribution Pipe Diameter in In				
x	Record Method of Flow Control				
xi	If Orifice Used for Flow Control, Describe Position				
xii	Record Flow Control Diameter in Inches				
xiii	Record Number of Flow Controls				
xiv	Record Squirt Height / Operating Head in Inches				Identify the skills necessary for interacting with other people in order to complete the subtasks
xv	Record Presence of Clean Outs / Inspection Ports				
xvi	If Clean Outs / Inspection Ports Present, Record Number				
xvii	Record Presence of Clean Out Surface Access				
xviii	Record Surface Loading Rate in Gallons per Day per Square Feet				
xix	Describe Filtrate Collection System Operation				
xx	Record Presence of Vegetation				

Subtas			Knowlec		Interpersonal Skills	
	xxi	If Vegetation Present, Describe				
	xxii	Record Presence of Water Level Control				
	xxiii	If Water Level Control Present, Describe its Operation				

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

11. Complete disinfection unit description

Subtasks		List sequenced order of steps to complete the master task	Knowledge	Identify knowledge necessary to complete the subtasks	Attitudes	Describe how you must behave to complete the subtasks
	a	Complete Form 1-1. System Description: Section D. No System Documentation Available		**MPCA Requirements**		
	i	Determine Type of Disinfection Unit		**Learning Objectives**		
	ii	If Chlorine Tablet Used, Record Manufacturer & Model				
	iii	If Chlorine Liquid Used, Record Manufacturer & Model				
	iv	If Ultraviolet Light Used, Record Manufacturer & Model				
	v	If Ozone Used, Record Manufacturer & Model				
	vi	If Other Used, Describe				
	vii	Describe Disinfection Monitoring Locate				
	viii	If Chlorine Used, Describe Type of Dechlorination			Interpersonal Skills	Identify the skills necessary for interacting with other people in order to complete the subtasks
	ix	If Chlorine Used, Record Dechlorination Manufacturer & Model				
	x	If Chlorine Used, Describe Dechlorination Monitoring Location				

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

12. Complete gravity distribution description

Subtasks	List sequenced order of steps to complete the master task	Knowledge	Identify knowledge necessary to complete the subtasks	Attitudes	Describe how you must behave to complete the subtasks
a	Complete Form 1-1. System Description: Section D. No System Documentation Available		**MPCA Requirements**		
			Learning Objectives		
i	Record Distribution Type				
ii	Record Distribution Method				
iii	Record Type of Configuration				
iv	Record Type of Distribution Approach				
v	Record Type of Distribution Media				

Interpersonal Skills	Identify the skills necessary for interacting with other people in order to complete the subtasks

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

13. Complete pressurized drainfield description

Subtasks		List sequenced order of steps to complete the master task	Knowledge	Identify knowledge necessary to complete the subtasks	Attitudes	Describe how you must behave to complete the subtasks
	a	Complete Form 1-1. System Description: Section D. No System Documentation Available		**MPCA Requirements**		
	i	Record Whether Pressurized Drainfield Is Level		**Learning Objectives**		
	ii	Record Number of Zones				
	iii	Record Switching Method Among Zones				
	iv	Record Distribution Pipe Diameter in Inches				
	v	Record Orifice Diameter in Inches				
	vi	Describe Orifice Orientation				
	vii	Record Number of Orifices				
	viii	Record Squirt Height / Operating Head in Inches				
	ix	Record Presence of Clean Outs / Inspection Ports			Interpersonal Skills	Identify the skills necessary for interacting with other people in order to complete the subtasks
	x	If Clean Outs / Inspection Ports Present. Record Number				
	xi	Record Presence of Clean Out Surface Access				
	xii	Record Number of Trenches / Beds				
	xiii	Record Trench / Bed Dimensions in Inches				

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

14. Complete pressure mound distribution description

Subtasks	List sequenced order of steps to complete the master task	Knowledge	Identify knowledge necessary to complete the subtasks	Attitudes	Describe how you must behave to complete the subtasks
a	Complete Form 1-1. System Description: Section D. No System Documentation Available		**MPCA Requirements**		
i	Record Distribution Method		**Learning Objectives**		
ii	Record Distribution Pipe Diameter in Inches				
iii	Record Orifice Diameter in Inches				
iv	Record Number of Orifices				
v	Record Squirt Height / Operating Head in Inches				
vi	Record Presence of Clean Outs / Inspection Ports				
vii	If Clean Outs / Inspection Ports Present, Record Number			Interpersonal Skills	Identify the skills necessary for interacting with other people in order to complete the subtasks
viii	Record Presence of Clean Out Surface Access				
ix	Record Number of Beds				
x	Record Bed Dimensions in Ft				

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

15. Complete drip distribution description

Subtasks	List sequenced order of steps to complete the master task	Knowledge	Identify knowledge necessary to complete the subtasks	Attitudes	Describe how you must behave to complete the subtasks
a	Complete Form 1-1. System Description: Section D. No System Documentation Available		**MPCA Requirements**		
			Learning Objectives		
i	Record Type of Distribution Field				
ii	Record Drip Tube Manufacturer & Model				
iii	Record Type of Filtration				
iv	Record Filtration Manufacturer & Model				
v	Record Method of Filter Cleaning				
vi	Record Number of Zones				
vii	If Multiple Zones, Describe Switching Device				
				Interpersonal Skills	Identify the skills necessary for interacting with other people in order to complete the subtasks
viii	If Multiple Zones, Record Area of Each Zone in Square Feet				
ix	Record Method of Field Flushing				
x	Record Presence of Air Release / Vacuum Breaker				
xi	Record Air Release / Vacuum Breaker Manufacturer & Model				
xii	Record Presence of Inspection Ports				
xiii	If Inspection Ports Present, Describe Locations				

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

16. Sketch system

Subtasks		Knowledge		Attitudes	
	List sequenced order of steps to complete the master task		Identify knowledge necessary to complete the subtasks		Describe how you must behave to complete the subtasks
a	Complete Form 1-1. System Description: Section D. No System Documentation Available		**MPCA Requirements**		
			Learning Objectives		

Interpersonal Skills	Identify the skills necessary for interacting with other people in order to complete the subtasks

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need

C. If system serves other establishmen

Subtasks		Knowledge	Attitudes / Interpersonal Skills
	List sequenced order of steps to complete the master task	Identify knowledge necessary to complete the subtasks	
1	Complete a Commercial Wastewater Source Evaluation from CIDWT High Strength and Hydraulic Loading Manual	**MPCA Requirements**	
2	Document facility operation		
3	Document water use habits	**Learning Objectives**	
4	Document onsite wastewater treatment system details		

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Describe how you must behave to complete the subtasks

Identify the skills necessary for interacting with other people in order to complete the subtasks

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

D. Complete system evaluation form (1-2) from CIDWT Manual

Subtasks		List sequenced order of steps to complete the master task
	1	Complete Form 1-2. System Evaluation: Part D. System Evaluation
	a	Record Flow Estimation Method
	b	If Using House Water Meter Reading,
	c	Verify correct placement of meter
	d	Calculate Estimated Gallons per Day = (Current Reading (Gallons) – Previous Reading (Gallons)) / Number of Days Between Readings
	e	Calibrate pumps
	f	If Using Pump Tank Control Meter Readings, Record from Form 6-2. Operational Checklist: Pump: Demand-Dosed System or Form 6-3. Operational Checklist: Pump: Timer-Dosed System ??
	g	If Using Discharge Line Meter, Record Reading in Gallons per Day??
	h	If Using Estimate Based on Number of Occupants, Record Number of People??
	i	If Using Estimate Based on Number of Occupants, Estimated Gallons per Day = Number of People x (50 to 70) gallons per day per person
	j	Shut off upstream pumps to estimate drainback
	k	Verify pump gages are recording accurately
	l	Identify other sources of wastewater entering system
	m	Assess collection system
	n	Talk to users
	o	Verify collection & comp are watertight
	p	Verify pump operating correctly
	q	Compare flow values along treatment train

Knowledge		Identify knowledge necessary to complete the subtasks
		MPCA Requirements
	1	7080.1200 subp.2
	2	7080.1550 subp.1
	3	7080.1550 subp.2
	4	7080.1860
		Learning Objectives
	1	Define drainback
	2	Explain how drainback affects flow calculation

Attitudes	Describe how you must behave to complete the subtasks

Interpersonal Skil	Identify the skills necessary for interacting with other people in order to complete the subtasks
	Report to client if ?

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

E. Conduct site assessment

Subtasks

	List sequenced order of steps to complete the master task
A	Complete Form 4-1. Site Assessment
1	Record details of current operation
2	Deem surface water management as acceptable or unacceptable
3	Deem subsurface water management as acceptable or unacceptable
4	Deem system encroachment as acceptable or unacceptable
5	Deem vegetation and soils as acceptable or unacceptable
6	If applicable, deem groundwater monitoring wells as acceptable or unacceptable
a	Sample Groundwater, if required
8	If applicable, deem observation well/piezometer as acceptable or unacceptable
a	Record Depth to Water, if required
b	Sample Groundwater, if required
9	Record additional comments

Knowledge

	Identify knowledge necessary to complete the subtasks
	MPCA Requirements
A	7080.2450 subp.7
B	7080.2000 subp.D
C	7080.2150 subp.3(J)
	Insert component settling/erosion
	Learning Objectives
A	Describe the influence of topography and landscape position with regard to onsite wastewater treatment system function
B	Describe the causes and effects of erosion around onsite components and in the drainfield
C	Identify the proper grading and subsurface water management procedures for an onsite system
D	Explain the importance of keeping encroachments and sources of stormwater away from system components
E	Describe the purpose of vegetation over the drainfield
F	Explain the significance of dead vegetation, excessive vegetation, large trees, and roots in the drainfield
G	Identify the four elements that must be present when a groundwater monitoring well is required
H	Recognize changes in site conditions that indicate the need to complete site assessment again

Attitudes

Describe how you must behave to complete the subtasks

Interpersonal Skil

Identify the skills necessary for interacting with other people in order to complete the subtasks
Inform home owner of issues arising from assessment before action is taken

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need

F. Determine required service activities and

Subtasks	List sequenced order of steps to complete the master task	Knowledge	Identify knowledge necessary to complete the subtasks	Attitudes / Interpersonal Skills
	1		**MPCA Requirements**	
	2			
	3		**Learning Objectives**	
	4			

-to-Know: Service Provider

l frequencies from OP

Describe how you must behave to complete the subtasks

Identify the skills necessary for interacting with other people in order to complete the subtasks

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need

G. Determine if any compliance manageme
and further evaluate risks to develop or mo

Subtasks	List sequenced order of steps to complete the master task	Knowledge	Identify knowledge necessary to complete the subtasks	Attitudes / Interpersonal Skills
1			**MPCA Requirements**	
2				
3			**Learning Objectives**	
4				

-to-Know: Service Provider

ent activities are overdue

dify service frequencies

Describe how you must behave to complete the subtasks

Identify the skills necessary for interacting with other people in order to complete the subtasks

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need

H. Create a management agreement w

Subtasks	List sequenced order of steps to complete the master task	Knowledge	Identify knowledge necessary to complete the subtasks	Attitudes / Interpersonal Skills
	1		**MPCA Requirements**	
	2			
	3		**Learning Objectives**	
	4			

-to-Know: Service Provider

ith customer

Describe how you must behave to complete the subtasks

Identify the skills necessary for interacting with other people in order to complete the subtasks

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

I. Determine if a variance is needed

Subtasks	Knowledge	Attitudes	Interpersonal Skills
List sequenced order of steps to complete the master task	Identify knowledge necessary to complete the subtasks	Describe how you must behave to complete the subtasks	Identify the skills necessary for interacting with other people in order to complete the subtasks
	MPCA Requirements		
	1 7080.1200 subp.3		
	Learning Objectives		

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need

V. Conduct service visit

Subtasks

	List sequenced order of steps to complete the master task
1	Identify each component as acceptable or unacceptable
2	Assess, operate and maintain components per CIDWT operational checklists
3	Complete system monitoring to meet regulatory operational requirements according to certified laboratory standards
4	Troubleshoot (identify cause of malfunction) system components that are deemed unacceptable
5	Determine if adjustment, repair, replacement, or upgrade is recommended or corrective action is required
6	Complete service visit

Knowledge

Identify knowledge necessary to complete the subtasks
MPCA Requirements
Learning Objectives

Attitudes

Interpersonal Skills

-to-Know: Service Provider

Describe how you must behave to complete the subtasks

Identify the skills necessary for interacting with other people in order to complete the subtasks

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need

1. Assess and certify sewage tank(s) as watertight

Subtasks	List sequenced order of steps to complete the master task	Knowledge	Identify knowledge necessary to complete the subtasks	Attitudes / Interpersonal Skills
1			**MPCA Requirements**	
2			7082.0700 4 B 1 7080.1500 4 B	
3			**Learning Objectives**	
4				
5				
6				

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s structurally sound and

Describe how you must behave to complete the subtasks

Identify the skills necessary for interacting with other people in order to complete the subtasks

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need

2. Assess and certify maintenance hole structurally sound and safe

Subtasks	List sequenced order of steps to complete the master task	Knowledge	Identify knowledge necessary to complete the subtasks	Attitudes / Interpersonal Skills
	1		**MPCA Requirements**	
			7080.1500 4 A 7082.0700 4 B 1	
			Learning Objectives	

-to-Know: Service Provider
: risers and covers as

Describe how you must behave to complete the subtasks

Identify the skills necessary for interacting with other people in order to complete the subtasks

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need

3. Assess system operation based on u

Subtasks	List sequenced order of steps to complete the master task	Knowledge	Identify knowledge necessary to complete the subtasks	Attitudes / Interpersonal Skills
	1		**MPCA Requirements**	
			7082.0700 4 B 4	
			Learning Objectives	

-to-Know: Service Provider

ıse and design

Describe how you must behave to complete the subtasks

Identify the skills necessary for interacting with other people in order to complete the subtasks

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

4. Assess holding tank

Tasks

	List sequenced order of steps to complete the master task
1	Complete Form 5.1 Operational Checklist: Holding Tank
a	Record Details of Current Operation
b	Deem Conditions at Tank as Acceptable or Unacceptable
c	Describe Tank
d	Deem Tank Access as Acceptable or Unacceptable
e	Assess Tank Insulation
f	Deem Alarm as Acceptable or Unacceptable
g	Deem Current Tank Operating Conditions As Acceptable or Unacceptable
i	Measure liquid level relative to inlet
ii	Measure maximum liquid level of tank
iii	Measure height at which alarm is activated as measured from invert of outlet
h	If Pumped, Deem Tank Structural Condition as Acceptable / Unacceptable
i	Record Future Holding Tank Pumping Recommendations
j	If Pumped, Record Details of Operation

Knowledge

	Identify knowledge necessary to complete the subtasks
	MPCA Requirements
1	7080.1900
2	7080.1500 subp.4(A)
3	7080.1500 subp.4(C)
4	7080.1500 subp.5
5	7080.1500 subp.6
6	7080.1970 subp.A
7	7080.1970 subp.B
8	7080.1970 subp.C(1)
9	7080.1970 subp.C(2)
10	7080.1970 subp.C(3)
11	7080.1970 subp.C(4)
12	7080.2000 subp.D
13	7080.2000 subp.G
14	7080.2000 subp.H
15	7080.2000 subp.K
16	7080.2010 subp.1(A)
17	7080.2010 subp.3(A)(2)
18	7080.2010 subp.A
19	7080.2010 subp.C
20	7080.2150 subp.3(B)
21	7080.2270 subp.10
22	7080.2270 subp.11
23	7080.2270 subp.8
24	7080.2270 subp.9
25	7080.2290 subp.B
26	7080.2290 subp.C
27	7080.2290 subp.D
28	7080.2290 subp.E
29	7080.2290 subp.F

Attitudes

Describe how you must behave to complete the subtasks

Skills

Identify the skills necessary for interacting with other people in order to complete the subtasks

Subtas		Knowlec		Interpersonal Skills
		30	7080.2450 subp.1	
		31	7080.2450 subp.2(A)	
		32	7080.2450 subp.2(B)	
		33	7080.2450 subp.3(A)	
		34	7080.2450 subp.3(B)	
		35	7080.2450 subp.3(C)	
			7080.2450 subp.5	
			Learning Objectives	
		1	Describe holding tanks	
		2	Describe the treatment processes that occur in tanks	
		3	Explain the operational significance of a tank that is above or below normal	
		4	Describe the conditions that indicate a tank should be serviced	

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

5. Assess, operate, and maintain grease trap

ks

	List sequenced order of steps to complete the master task
1	Complete Form 5.2 Operational Checklist: Septic, Trash & Processing Tanks
a	Record Details of Current Operation
b	Deem Conditions at Tank as Acceptable or Unacceptable
c	Describe Tank
d	Deem Tank Access as Acceptable or Unacceptable
e	Assess Tank Insulation
f	Deem Alarm as Acceptable or Unacceptable
g	Deem Current Tank Operating Conditions as Acceptable or Unacceptable
i	Measure liquid level relative to outlet
ii	Measure maximum liquid level of tank
iii	Measure height at which alarm is activated as measured from invert of inlet
iv	Evaluate layers in tank
h	Record Future Tank Pumping Recommendation
i	Deem Condition of Baffles as Acceptable or Unacceptable
j	Evaluate Effluent Screen
k	Clean Effluent Screen
l	If Pumped, Deem Tank Structural Condition as Acceptable or Unacceptable
m	If Pumped, Record Details of Operation
n	If Required for Monitoring, Collect Lab Samples

dge

	Identify knowledge necessary to complete the subtasks
	MPCA Requirements
1	7080.1900
2	7080.1500 subp.4(A)
3	7080.1500 subp.4(C)
4	7080.1500 subp.5
5	7080.1500 subp.6
6	7080.1970 subp.A
7	7080.1970 subp.B
8	7080.1970 subp.C(1)
9	7080.1970 subp.C(2)
10	7080.1970 subp.C(3)
11	7080.1970 subp.C(4)
12	7080.2000 subp.D
13	7080.2000 subp.G
14	7080.2000 subp.H
15	7080.2000 subp.K
16	7080.2010 subp.1(A)
17	7080.2010 subp.3(A)(2)
18	7080.2010 subp.A
19	7080.2010 subp.C
20	7080.2150 subp.3(B)
21	7080.2270 subp.10
22	7080.2270 subp.11
23	7080.2270 subp.8
24	7080.2270 subp.9
25	7080.2290 subp.B
26	7080.2290 subp.C
27	7080.2290 subp.D
28	7080.2290 subp.E
29	7080.2290 subp.F
30	7080.2450 subp.1
	7080.2450 subp.2(A)

Attitudes

Describe how you must behave to complete the subtasks

Identify the skills necessary for interacting with other people in order to complete the subtasks

Subtas		Knowlec			Interpersonal Skills
			31	7080.2450 subp.2(B)	
			32	7080.2450 subp.3(A)	
			33	7080.2450 subp.3(B)	
			34	7080.2450 subp.3(C)	
			35	7080.2450 subp.5	
			36	**7081.0290 Item B**	
				Learning Objectives	
			1	Describe septic tanks	
			2	Compare and contrast holding tanks, septic tanks, trash tanks and processing	
			3	Describe the treatment processes that occur in tanks	
			4	Explain the operational significance of a tank that is above or below normal	
			5	Describe the function of an effluent screen in a tank	
			6	Describe the use of a sludge judge and/or other measuring device to determine the depth of sludge and scum in a tank	
			7	Describe the conditions that indicate a tank should be serviced	

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

6. Assess septic tank

Tasks

	List sequenced order of steps to complete the master task
1	Complete Form 5.2 Operational Checklist: Septic, Trash & Processing Tanks
a	Record Details of Current Operation
b	Deem Conditions at Tank as Acceptable or Unacceptable
c	Describe Tank
d	Deem Tank Access as Acceptable or Unacceptable
e	Assess Tank Insulation
f	Deem Alarm as Acceptable or Unacceptable
g	Deem Current Tank Operating Conditions as Acceptable or Unacceptable
i	Measure liquid level relative to outlet
ii	Measure maximum liquid level of tank
iii	Measure height at which alarm is activated as measured from invert of inlet
iv	Evaluate layers in tank
h	Record Future Tank Pumping Recommendation
i	Deem Condition of Baffles as Acceptable or Unacceptable
j	Evaluate Effluent Screen
k	Clean Effluent Screen
l	If Pumped, Deem Tank Structural Condition as Acceptable or Unacceptable
m	If Pumped, Record Details of Operation
n	If Required for Monitoring, Collect Lab Samples

Knowledge

	Identify knowledge necessary to complete the subtasks
	MPCA Requirements
1	7080.1900
2	7080.1500 subp.4(A)
3	7080.1500 subp.4(C)
4	7080.1500 subp.5
5	7080.1500 subp.6
6	7080.1970 subp.A
7	7080.1970 subp.B
8	7080.1970 subp.C(1)
9	7080.1970 subp.C(2)
10	7080.1970 subp.C(3)
11	7080.1970 subp.C(4)
12	7080.2000 subp.D
13	7080.2000 subp.G
14	7080.2000 subp.H
15	7080.2000 subp.K
16	7080.2010 subp.1(A)
17	7080.2010 subp.3(A)(2)
18	7080.2010 subp.A
19	7080.2010 subp.C
20	7080.2150 subp.3(B)
21	7080.2270 subp.10
22	7080.2270 subp.11
23	7080.2270 subp.8
24	7080.2270 subp.9
25	7080.2290 subp.B
26	7080.2290 subp.C
27	7080.2290 subp.D
28	7080.2290 subp.E
29	7080.2290 subp.F
30	7080.2450 subp.1

Attitudes

Describe how you must behave to complete the subtasks

Skills

Identify the skills necessary for interacting with other people in order to complete the subtasks

Subtas		Knowlec			Interpersonal Skills
			31	7080.2450 subp.2(A)	
			32	7080.2450 subp.2(B)	
			33	7080.2450 subp.3(A)	
			34	7080.2450 subp.3(B)	
			35	7080.2450 subp.3(C)	
			36	7080.2450 subp.5	
				Learning Objectives	
			1	Describe septic tanks	
			2	Compare and contrast holding tanks, septic tanks, trash tanks and processing	
			3	Describe the treatment processes that occur in tanks	
			4	Explain the operational significance of a tank that is above or below normal	
			5	Describe the function of an effluent screen in a tank	
			6	Describe the use of a sludge judge and/or other measuring device to determine the depth of sludge and scum in a tank	
			7	Describe the conditions that indicate a tank should be serviced	

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

7. Assess pump tank

	List sequenced order of steps to complete the master task
1	Complete Form 6.1 Operational Checklist: Pump Tank
a	Record Details of Current Operation
b	Deem Conditions at Tank as Acceptable or Unacceptable
c	Describe Tank
d	Deem Tank Access as Acceptable or Unacceptable
e	Assess Tank Insulation
f	Deem Current Tank Operating Conditions as Acceptable or Unacceptable
i	Measure liquid level relative to outlet
ii	Measure maximum liquid level of tank
iii	Measure height at which alarm is activated as measured from top of maximum liquid level
g	Deem Pump or Siphon as Acceptable or Unacceptable
h	Deem Discharge Assembly as Acceptable or Unacceptable
i	If Present, Deem Seal and Watertightness of Electrical Components as Acceptable or Unacceptable
j	If Pumped, Deem Tank Structural Condition as Acceptable / Unacceptable
j	Evaluate Solids Accumulation in Tank
k	Record Future Tank Pumping Recommendation
l	If Pumped, Record Details of Operation
m	Evaluate Screen
i	Clean screen

ks

	Identify knowledge necessary to complete the subtasks
	MPCA Requirements
1	7080.1900
2	7080.1500 subp.4(A)
3	7080.1500 subp.4(C)
4	7080.1500 subp.5
5	7080.1500 subp.6
6	7080.1970 subp.A
7	7080.1970 subp.B
8	7080.1970 subp.C(1)
9	7080.1970 subp.C(2)
10	7080.1970 subp.C(3)
11	7080.1970 subp.C(4)
12	7080.2000 subp.D
13	7080.2000 subp.G
14	7080.2000 subp.H
15	7080.2000 subp.K
16	7080.2010 subp.1(A)
17	7080.2010 subp.3(A)(2)
18	7080.2010 subp.A
19	7080.2010 subp.C
20	7080.2100 subp.2(A)
21	7080.2100 subp.2(D)
22	7080.2100 subp.2(E)
23	7080.2100 subp.2(F)
24	7080.2100 subp.3(A)
25	7080.2100 subp.3(B)
26	7080.2100 subp.3(C)
27	7080.2100 subp.4(A)
28	7080.2100 subp.4(B)
29	7080.2100 subp.4(C)
30	7080.2100 subp.4(D)

dge

Describe how you must behave to complete the subtasks

Attitudes

Subtas		
	n	If Required for Monitoring, Collect Lab Samples

Knowlec	
31	7080.2150 subp.3(B)
32	7080.2210 subp.1(C)
33	7080.2230 subp.1(D)
34	7080.2260 subp.1(C)
35	7080.2270 subp.1(C)
36	7080.2270 subp.10
37	7080.2270 subp.11
38	7080.2270 subp.8
39	7080.2270 subp.9
40	7080.2300 subp.1(C)
41	7080.2450 subp.1
42	7080.2450 subp.2(A)
43	7080.2450 subp.2(B)
44	7080.2450 subp.3(A)
45	7080.2450 subp.3(B)
46	7080.2450 subp.3(C)
47	7080.2450 subp.3(D)
48	7080.2450 subp.5
	Learning Objectives
1	Describe the components of an onsite wastewater system that includes a pump tank
2	Identify various types of pumps and their applications
3	Understand the purpose and O&M requirements for siphons
4	Understand the different functions of surge tanks, pump tanks, recirculation tanks, and internal pump basins
5	Understand the purpose and O&M requirements of the following components in the pump tank: (a) Air release valve (b) Check valve (c) Quick disconnect (d) Anti-siphon device (e) Isolation valve

Interpersonal Skills
Identify the skills necessary for interacting with other people in order to complete the subtasks

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

8. Assess demand-dosed pump/control system

Subtasks

	List sequenced order of steps to complete the master task
1	Complete Form 6.2 Operational Checklist: Pump: Demand-Dosed System (Including Siphons)
a	Record Details of Current Operation
b	Record System Type
c	Deem Controls as Acceptable or Unacceptable
i	Calculate number of cycles per day
d	Deem Pump / Siphon as Acceptable or Unacceptable
e	Deem Water Level Sensors as Acceptable or Unacceptable
f	Evaluate Settings of Each Sensor
g	Calculate Dose Volume
h	Calculate Pump Delivery Rate
i	Calculate Total Gallons
j	Calculate Gallons per Day

Knowledge

	Identify knowledge necessary to complete the subtasks
	MPCA Requirements
1	7080.1500 subp.4(A)
2	7080.1500 subp.4(C)
3	7080.1500 subp.5
4	7080.1500 subp.6
5	7080.2450 subp.1
	Learning Objectives
1	Understand settings for demand dosed control panels
2	Apply math calculations for (a) Gallons per inch (b) Doses per day (c) Volume per dose (d) Gallons per day (e) Gallons per minute and (f) Cycle counters-elapsed time meters

Attitudes

Describe how you must behave to complete the subtasks

Interpersonal Skills

Identify the skills necessary for interacting with other people in order to complete the subtasks

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

9. Assess timed-dosed pump/control system

Subtasks

	List sequenced order of steps to complete the master task
1	Complete Form 6.3 Operational Checklist: Pump: Time-Dosed System (Including Siphons)
a	Record Details of Current Operation
b	Deem Controls as Acceptable or
i	Calculate cycles per day
c	Deem Pump as Acceptable or Unacceptable
d	Deem Water Level Sensors as Acceptable or Unacceptable
e	Evaluate Sensor Settings
f	Calculate Pump Delivery Rate
g	Calculate Dose Volume
h	Calculate Total Gallons
i	Calculate Gallons per Day

Knowledge

	Identify knowledge necessary to complete the subtasks
	MPCA Requirements
1	7080.1500 subp.4(A)
2	7080.1500 subp.4(C)
3	7080.1500 subp.5
4	7080.1500 subp.6
5	7080.2300 subp.E
6	7080.2450 subp.1
	Learning Objectives
1	Understand settings for time dosed control panels
2	Apply math calculations for (a) Gallons per inch (b) Doses per day (c) Volume per dose (d) Gallons per day (e) Gallons per minute and (f) Cycle counters-elapsed time meters

Attitudes

Describe how you must behave to complete the subtasks

Interpersonal Skills

Identify the skills necessary for interacting with other people in order to complete the subtasks

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

10. Assess gravity distribution

Subtasks

	List sequenced order of steps to complete the master task
1	Complete Form 8.1 Operational Checklist: Gravity Distribution
a	Record Details of Current Operation
b	Record Method for Dosing to Field
c	Record Method for Distribution in the Field
d	Deem Conditions at the Drainfield Site as Acceptable or Unacceptable
e	Deem Distribution Device as Acceptable or Unacceptable
i	Measure distal head
f	Deem Each Lateral as Acceptable or Unacceptable
g	Deem Inspection Ports as Acceptable or Unacceptable
h	Deem Switching Valves as Acceptable or Unacceptable

Knowledge

	Identify knowledge necessary to complete the subtasks
	MPCA Requirements
1	7080.1500 subp.4(A)
2	7080.1500 subp.4(C)
3	7080.1500 subp.5
4	7080.1500 subp.6
5	7080.2050 subp.1
6	7080.2050 subp.3(B)(1)
7	7080.2050 subp.3(B)(2)
8	7080.2050 subp.3(B)(3)
9	7080.2050 subp.3(B)(5)
10	7080.2050 subp.3(D)(1)
11	7080.2050 subp.3(D)(2)
12	7080.2050 subp.3(D)(3)
13	7080.2150 subp.3(J)
14	7080.2210 subp.4(B)
15	7080.2210 subp.4(E)
16	7080.2450 subp.1
	Learning Objectives
1	Understand the methods and components of final treatment and dispersal by a gravity distribution system
2	Understand the methods that may be used for effluent dispersal in a gravity drainfield
3	Understand the purposes of and O&M requirements for the following components in a drainfield (a) serial distribution (b) parallel distribution (c) distribution bed (d) pressure manifold to gravity distribution
4	Understand the purpose of the inspection port in a soil absorption area

Attitudes

Describe how you must behave to complete the subtasks

Interpersona

Identify the skills necessary for interacting with other people in order to complete the subtasks

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

11. Assess pressure distribution

Subtasks

	List sequenced order of steps to complete the master task
1	Complete Form 8.3 Operational Checklist: Pressurized Drainfield
a	Record Details of Current Operation
b	Determine Effluent Quality
c	Determine Type of Pressurized Drainfield
d	Deem Conditions at the Pressurized Drainfield as Acceptable/Unacceptable
e	Deem Supply Line as Acceptable or Unacceptable
f	Deem Switching Valves as Acceptable or Unacceptable
g	Describe Soil Treatment Area
h	Deem Orifices as Acceptable or Unacceptable
i	Clean orifices
i	If Required for Monitoring, Collect Lab Samples

Knowledge

	Identify knowledge necessary to complete the subtasks
	MPCA Requirements
1	7080.1500 subp.4(A)
2	7080.1500 subp.4(C)
3	7080.1500 subp.5
4	7080.1500 subp.6
5	7080.2050 subp.1
6	7080.2050 subp.2(A)
7	7080.2050 subp.4(F)
8	7080.2050 subp.4(J)
9	7080.2050 subp.B(2)
10	7080.2050 subp.B(4)
11	7080.2050 subp.B(8)
12	7080.2050 subp.D
13	7080.2150 subp.3(J)
14	7080.2220 subp.1(D)
15	7080.2450 subp.1
	Learning Objectives

Attitudes

Describe how you must behave to complete the subtasks

Interpersonal Skills

Identify the skills necessary for interacting with other people in order to complete the subtasks

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

12. Assess at-grades & mounds

Subtasks

	List sequenced order of steps to complete the master task
1	Complete Form 8.4a. Operational checklist: Bottomless Sand Filters &
a	Record Details of Current Operation
b	Determine Type of System
c	Deem Conditions at the Drainfield Site as Acceptable or Unacceptable
d	Deem Media Surface as Acceptable or Unacceptable
i	Complete manufacturer's recommended maintenance
e	Deem Pressure Distribution as Acceptable or Unacceptable
i	Measure distal head
ii	Clean laterals
f	Deem Additional Requirements for Mounds as Acceptable or Unacceptable
g	Deem Inspection Ports as Acceptable or Unacceptable
h	If Required for Monitoring, Collect Lab Samples

Knowledge

	Identify knowledge necessary to complete the subtasks
	MPCA Requirements
1	7080.1500 subp.4(A)
2	7080.1500 subp.4(C)
3	7080.1500 subp.5
4	7080.1500 subp.6
5	7080.2050 subp.1
6	7080.2050 subp.2(A)
7	7080.2050 subp.2(B)
8	7080.2050 subp.2(C)
9	7080.2050 subp.4(J)
10	7080.2150 subp.3(J)
11	7080.2220 subp.3(O)
12	7080.2220 subp.U
13	7080.2230 subp.3(G)
14	7080.2230 subp.F
15	7080.2270 subp.7(B)
16	7080.2450 subp.1
	Learning Objectives
1	Understand the methods and components of final treatment and dispersal by at-grades and mound systems
2	Understand the difference between media filters and media filters used an drainfield options
3	Understand the principles and O&M requirements of at-grades
4	Understand the principles and O&M requirements of mound drainfields

Attitudes

	Describe how you must behave to complete the subtasks

Interpersonal S

	Identify the skills necessary for interacting with other people in order to complete the subtasks

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

13. Assess bottomless peat filter

Subtasks

	List sequenced order of steps to complete the master task
1	Complete Form 8.4b. Operational checklist: Bottomless peat filter
a	Record Details of Current Operation
b	Deem Conditions at the Drainfield Site as
c	Deem Media Surface as Acceptable or Unacceptable
i	Clean media
ii	Replace media
iii	Complete manufacturer's recommended maintenance
d	Deem Pressure Distribution as Acceptable or Unacceptable
i	Measure distal head
ii	Clean laterals
e	Evaluate Completion of Manufacturer's Required Maintenance
f	If Required for Monitoring, Collect Lab Samples

Knowledge

	Identify knowledge necessary to complete the subtasks
	MPCA Requirements
1	7080.1500 subp.4(A)
2	7080.1500 subp.4(C)
3	7080.1500 subp.5
4	7080.1500 subp.6
5	7080.2050 subp.1
6	7080.2050 subp.2(A)
7	7080.2050 subp.2(B)
8	7080.2050 subp.2(C)
9	7080.2050 subp.4(J)
10	7080.2450 subp.1
	Learning Objectives
1	Understand the methods and components of final treatment and dispersal by bottomless peat filters
2	Understand the difference between media filters and media filters used an drainfield options
3	Understand the principles and O&M requirements of bottomless peat filters

Attitudes

Describe how you must behave to complete the subtasks

Interpersonal Skills

Identify the skills necessary for interacting with other people in order to complete the subtasks

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

14. Assess drip distribution

Subtasks

	List sequenced order of steps to complete the master task
1	Complete Form 8.5. Operational checklist: Drip Distribution
a	Record Details of Current Operation
b	Deem Conditions at the Drip Distribution
c	Deem Drip Filter as Acceptable or Unacceptable
i	Measure pre-filter pressure
ii	Measure post-filter pressure
iii	Clean filter
iv	Replace filter
d	Deem Effluent Flow Metering as Acceptable or Unacceptable
e	Deem Switching Valves as Acceptable or Unacceptable
f	Describe Field Flushing
i	Manually flush zones
g	Describe Zone Operation
h	Evaluate Completion of Manufacturer's Required Maintenance

Knowledge

	Identify knowledge necessary to complete the subtasks
	MPCA Requirements
1	7080.1500 subp.4(A)
2	7080.1500 subp.4(C)
3	7080.1500 subp.5
4	7080.1500 subp.6
5	7080.2050 subp.1
6	7080.2050 subp.2(A)
7	7080.2050 subp.2(B)
8	7080.2050 subp.2(C)
9	7080.2150 subp.3(J)
10	7080.2450 subp.1
	Learning Objectives
1	Understand the methods and components of final treatment and dispersal by drip distribution
2	Understand the principles of a drip distribution system
3	Understand the purpose and O&M requirements for the following components in a drip distribution system (a) vacuum breaker (b) pressure compensating emitter (c) pressure regulator (d) field flushing.

Attitudes

Describe how you must behave to complete the subtasks

Interpersonal Skills

Identify the skills necessary for interacting with other people in order to complete the subtasks

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

15. Assess aerobic treatment unit

Tasks

	List sequenced order of steps to complete the master task
1	Complete Form 7.2. Operational checklist: Aerobic Treatment Unit
a	Record Details of Current Operation
b	Determine Type of Aerobic Treatment Unit
c	Deem Conditions at the Aerobic Treatment Unit as Acceptable or Unacceptable
d	Deem Accessibility to Aerobic Treatment Unit as Acceptable or Unacceptable
e	Deem Venting / Air Supply as Acceptable or Unacceptable
i	Clean air filter/screen
ii	Replace air filter/screen
f	Deem Aeration Chamber as Acceptable or Unacceptable
i	Measure DO in aeration chamber
ii	Measure pH in aeration chamber
iii	Measure temperature in aeration chamber
iv	Complete settleability test
g	Deem Media as Acceptable or Unacceptable
i	Wash media
ii	Replace media
h	Deem Clarification Chamber as Acceptable or Unacceptable
i	Measure scum layer
ii	Measure clear zone depth below outlet
iii	Measure DO in clarifier
iv	Measure pH in clarifier
v	Measure temperature in clarifier
i	Deem Sludge Return Operation as Acceptable or Unacceptable

Knowledge

	Identify knowledge necessary to complete the subtasks
	MPCA Requirements
1	7080.1500 subp.4(A)
2	7080.1500 subp.4(C)
3	7080.1500 subp.5
4	7080.1500 subp.6
5	7080.2050 subp.1
6	7080.2050 subp.2(A)
7	7080.2050 subp.2(B)
8	7080.2050 subp.2(C)
9	7080.2450 subp.1
	Learning Objectives
1	Describe the components of an aerobic treatment unit
2	Understand the difference between suspended growth and attached growth treatment processes
3	Name the treatment process and stages occurring in a sequencing batch reactor
4	Identify the different methods to introduce air into an aeration chamber
5	Understand the purposes of and O&M requirements for the following components in an aerobic treatment unit (a) Air supply bent (b) Schrader valve (c) Aspirator (d) Clarifier
6	Understand the effect of hydraulic loading on the clarifier and organic loading on the

Attitudes

Describe how you must behave to complete the subtasks

Skills

Identify the skills necessary for interacting with other people in order to complete the subtasks

Subtas		Knowlec	Interpersonal Skills
j	Deem Control Panel as Acceptable or Unacceptable		
k	Deem Alarm(s) as Acceptable or Unacceptable		
i	Calculate elapsed time in alarm status		
ii	Calculate number of alarm events		
l	Evaluate Completion of Manufacturer's Required Maintenance		
m	If Required for Monitoring, Collect Lab Samples		

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

16. Assess media filter

	List sequenced order of steps to complete the master task
1	Complete Form 7.1. Operational checklist: Media Filter
a	Record Details of Current Operation
b	Determine Type of Media Filters
c	Deem Conditions at media Filter as Acceptable or Unacceptable
d	Deem Cover as Acceptable or Unacceptable
e	Deem Venting / Air Supply as Acceptable or Unacceptable
f	Deem Media Surface as Acceptable or Unacceptable
i	Complete manufacturer's suggested maintenance
g	Deem Effluent Quality as Acceptable or Unacceptable
i	Assess turbidity
ii	Measure DO at outlet
iii	Measure pH at outlet
iv	Measure temperature at outlet
h	Deem Pressure Distribution as Acceptable or Unacceptable
i	Measure distal head
ii	Clean laterals
i	Deem Gravity Distribution as Acceptable or Unacceptable
j	Deem Filter Drainage Systems as Acceptable or Unacceptable
k	Deem Additional Tasks for Recirculating Filters as Acceptable or Unacceptable
i	Clean recirculation device

ks

	Identify knowledge necessary to complete the subtasks
	MPCA Requirements
1	7080.1500 subp.4(A)
2	7080.1500 subp.4(C)
3	7080.1500 subp.5
4	7080.1500 subp.6
5	7080.2050 subp.1
6	7080.2050 subp.2(A)
7	7080.2050 subp.2(B)
8	7080.2050 subp.2(C)
9	7080.2050 subp.4(J)
10	7080.2450 subp.1
	Learning Objectives
1	List the types of and differences between the media used in media filters, and explain how media filters treat wastewater
2	Explain the relationship between effluent detention time and wastewater treatment efficiency in media filters
3	Understand the difference between single pass and recirculating media filter treatment processes and treatment trains
4	Understand trickling filter treatment trains, and identify treatment processes
5	Explain the difference between media filters and trickling filters
6	Understand what distal pressure is and how it may indicate a need for servicing
7	Describe the methods used to clean distribution laterals in media filters

ge

Attitudes	Describe how you must behave to complete the subtasks

	Identify the skills necessary for interacting with other people in order to complete the subtasks

Subtask			Knowled			Interpersonal Skills	
	ii	Adjust recirculation ratio		8	Understand what recirculation ratio is and how it may indicate the need for service on a media filter		
	iii	Evaluate Completion of Manufacturer's Required Maintenance					
	I	If Required for Monitoring, Collect Lab Samples					

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

17. Assess constructed wetland

Subtasks

	List sequenced order of steps to complete the master task
1	Complete Form 7.3. Operational checklist: Constructed wetland
a	Record Details of Current Operation
b	Describe Constructed Wetland
c	Deem Conditions at the Constructed Wetland as Acceptable or Unacceptable
d	Deem Water Level Management as Acceptable or Unacceptable
i	Adjust water level
e	Deem Vegetation as Acceptable or Unacceptable
f	Deem Effluent Quality as Acceptable or Unacceptable
i	Measure turbidity
ii	Measure DO in outlet
iii	Measure pH in outlet
iv	Measure temperature in outlet
g	Deem Additional Tasks for Subsurface Flow Wetlands as Acceptable or
h	Deem Inspection Ports as Acceptable or Unacceptable
i	If Required for Monitoring, Collect Lab Samples

Knowledge

	Identify knowledge necessary to complete the subtasks
	MPCA Requirements
1	7080.1500 subp.4(A)
2	7080.1500 subp.4(C)
3	7080.1500 subp.5
4	7080.1500 subp.6
5	7080.2050 subp.1
6	7080.2050 subp.2(A)
7	7080.2050 subp.2(B)
8	7080.2050 subp.2(C)
9	7080.2450 subp.1
10	7080.2150 subp.3.J
	Learning Objectives
1	Understand the treatment processes in constructed wetlands.
2	Understand the relationship between hydraulic detention time and the quality of the effluent

Attitudes

Describe how you must behave to complete the subtasks

Interpersonal Skills

Identify the skills necessary for interacting with other people in order to complete the subtasks

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

18. Assess chlorination disinfection unit

Subtasks

	List sequenced order of steps to complete the master task
1	Complete Form 7.5. Operational checklist: Disinfection Unit - Chlorine
a	Record Details of Current Operation
b	Deem Operation of Chlorination System as
c	Deem Tablet Chlorination as Acceptable or Unacceptable
i	Add tablets
ii	Clean contact chamber and stack feeder
iii	Measure chlorine residual
d	Deem Liquid Chlorinator as Acceptable or Unacceptable
i	Measure chlorine residual
e	Deem Tablet Dechlorination as Acceptable or Unacceptable
i	Add tablets
ii	Clean contact chamber and stack feeder
iii	Measure chlorine residual
f	Deem Control Panel as Acceptable or Unacceptable
g	Evaluate Completion of Manufacturer's Required Maintenance
h	If Required for Monitoring, Collect Lab Samples

Knowledge

	Identify knowledge necessary to complete the subtasks
	MPCA Requirements
1	7080.1500 subp.4(A)
2	7080.1500 subp.4(C)
3	7080.1500 subp.5
4	7080.1500 subp.6
5	7080.2050 subp.1
6	7080.2050 subp.2(A)
7	7080.2050 subp.2(B)
8	7080.2050 subp.2(C)
9	7080.2450 subp.1
	Learning Objectives
1	Understand the methods of disinfection systems

Attitudes

Describe how you must behave to complete the subtasks

Interpersonal Skills

Identify the skills necessary for interacting with other people in order to complete the subtasks

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

19. Assess UV disinfection unit

Subtasks

	List sequenced order of steps to complete the master task
1	Complete Form 7.6. Operational checklist: Disinfection Unit - UV Light
a	Record Details of Current Operation
b	Deem Power Supply as Acceptable or Unacceptable
i	Replace ballast
c	Deem UV Controls as Acceptable or Unacceptable
i	Read intensity
d	Deem Contact Chamber, Lamp and Sleeve Conditions as Acceptable or Unacceptable
i	Clean/Flush contact chamber of solids
ii	Clean protective sleeve
iii	Replace protective sleeve
iv	Replace UV lamp
e	Deem Influent Characteristics as Acceptable or Unacceptable
i	Measure turbidity
	Measure flow rate
f	Deem Control Panel as Acceptable or Unacceptable
g	Deem Housing Unit as Acceptable or Unacceptable
h	Evaluate Completion of Manufacturer's Required Maintenance
i	If Required for Monitoring, Collect Lab Samples

Knowledge

	Identify knowledge necessary to complete the subtasks
	MPCA Requirements
1	7080.1500 subp.4(A)
2	7080.1500 subp.4(C)
3	7080.1500 subp.5
4	7080.1500 subp.6
5	7080.2050 subp.1
6	7080.2050 subp.2(A)
7	7080.2050 subp.2(B)
8	7080.2050 subp.2(C)
9	7080.2450 subp.1
	Learning Objectives
1	Understand the methods of disinfection systems

Attitudes

Describe how you must behave to complete the subtasks

Interpersonal Sk

Identify the skills necessary for interacting with other people in order to complete the subtasks

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Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

20. Assess privy

Subtasks	Knowledge	Attitudes	Interpersonal Skills
List sequenced order of steps to complete the master task	Identify knowledge necessary to complete the subtasks	Describe how you must behave to complete the subtasks	Identify the skills necessary for interacting with other people in order to complete the subtasks
	MPCA Requirements		
	1 7080.2280 subp.D		
	2 7080.2450 subp.4(B)		
	3 7080.1500 subp.6		
	Learning Objectives		

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Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

21. Assess, operate and maintain building sewer, collection system, and supply pipes

Subtasks

List sequenced order of steps to complete the master task

a	Assess inflow
b	Assess infiltration
c	Assess exfiltration
	Assess, operate, and maintain gravity piping
	Assess, operate, and maintain pressure pipi

Knowledge

Identify knowledge necessary to complete the subtasks

MPCA Requirements

7080.1500 subp.4(A)

7080.1500 subp.4(C)

7080.1500 subp.5

7080.1500 subp.6

Learning Objectives

Attitudes

Describe how you must behave to complete the subtasks

Interpersonal Skills

Identify the skills necessary for interacting with other people in order to complete the subtasks

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Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

22. Assess, operate, and maintain water table monitoring device(s)

Subtasks

List sequenced order of steps to complete the master task

a Assess inflow
b Assess infiltration
c

Knowledge

Identify knowledge necessary to complete the subtasks

MPCA Requirements

Learning Objectives

Attitudes

Describe how you must behave to complete the subtasks

Interpersonal Skills

Identify the skills necessary for interacting with other people in order to complete the subtasks

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Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

23. Assess, operate, and maintain monitoring well(s)

Subtasks	List sequenced order of steps to complete the master task	Knowledge	Identify knowledge necessary to complete the subtasks	Attitudes	Describe how you must behave to complete the subtasks
a			**MPCA Requirements**		
b					
c					
			Learning Objectives		

Interpersonal Skills	Identify the skills necessary for interacting with other people in order to complete the subtasks

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Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

B. Complete system monitoring to meet regulatory operational requirer

Subtasks	List sequenced order of steps to complete the master task	Knowledge	Identify knowledge necessary to complete the subtasks	Attitudes	Describe how you must behave to complete the subtasks
			MPCA Requirements		
1	Collect samples from appropriate location identified in operating permit or manufacturer recommendation				
2	Preserve, store, and ship samples according to certified laboratory standards		**Learning Objectives**		
3	Record chain of custody				
4	Perform field tests as needed such as effluent odor, color, temperature, DO, pH, scum and sludge accumulation, settleability, water table level, etc.				
5	Calculate actual flow rate				
6	Interpret field test and lab sample results				
7	If field sample results unacceptable, troubleshoot system operation and employ contingency plan from operating permit				

Skills	Identify the skills necessary for interacting with other people in order to complete the subtasks

Interpersonal Sk

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Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

C.Troubleshoot (identify cause of malfunction) system components that are deemed unacceptable

Subtasks	Knowledge	Attitudes
List sequenced order of steps to complete the master task	Identify knowledge necessary to complete the subtasks	Describe how you must behave to complete the subtasks
	MPCA Requirements	
	Learning Objectives	

Interpersonal Skills
Identify the skills necessary for interacting with other people in order to complete the subtasks

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Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

A. Troubleshoot site assessment

Tasks		List sequenced order of steps to complete the master task	Knowledge		Identify knowledge necessary to complete the subtasks	Attitudes	Describe how you must behave to complete the subtasks
	1	**If surface water management is deemed unacceptable**			**MPCA Requirements**		
				1	7080.2450 subp.7		
	a	If surface water is not effectively managed/diverted away from the site and/or its components		2	7080.2000 subp.D		
				3	7080.2150 subp.3(J)		
	i	Locate source of surface water			**Learning Objectives**		
	ii	Divert surface water away from system with diversion berms and swales					
	iii	Divert run-on with gutters, drainiage trenches, and/or berms					
	iv	Refer homeowner to consult designer and/or installer, as necessary					
	b	If odor is detected within 10 feet of perimeter of the system					
	i	Locate source of odor					
	ii	If natural plumbing is source of odor, refer homeowner to plumber					
	iii	If SSTS is source of odor,					
	-	Replace caps					
	-	Replace covers					
	-	Replace sealant					
	!	Seal tank					
	!	Seal & Secure inspection pipe					
	!	Seal electrical connections					
	-	Assess system owner's use to identify atypical source					
	c	If system components have settled or eroded,					
	i	Determine source of settling					
	ii	Refer homeowner to complete themselves or consult installer					

Subtas		Knowle	Interpersonal Skills	
2	**If subsurface water management is deemed unacceptable**			
a	Assess interceptor drain			
i	If drainage outlet is physically blocked, clear blockage			
ii	If rodent guard missing, replace guard			
b	If pump outside structure, troubleshoot pump, pump tank & controls			
i	Verify outlet for sump pump discharge			
c	Refer homeowner to consult designer and/or installer, as necessary			
3	**If system encroachment is deemed unacceptable**			
a	Note any activities affecting performance			
b	Refer homeowner to consult designer and/or installer, as necessary			
4	**If vegetation and soils are deemed unacceptable**			Identify the skills necessary for interacting with other people in order to complete the subtasks
a	Identify surfacing or high water levels		1	Inform home owner of issues arising from unacceptable assessment before action is taken
b	Refer homeowner to complete themselves or consult installer			
5	**If groundwater monitoring wells are deemed unacceptable**			
a	Repair/Replace cap			
b	Refer homeowner to consult MDH			
6	**If observation well/piezometer is deemed unacceptable,**			
a	Repair/Replace cap			

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Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

1. Troubleshoot holding tank operation

		List sequenced order of steps to complete the master task
Tasks	1	**If Conditions at Tank are Deemed Unacceptable,**
	a	If odor is found within 10 ft of perimeter of system
	i	Locate source of odor
	ii	If natural plumbing is source of odor, refer homeowner to plumber
	iii	If SSTS is source of odor,
	-	Replace caps
	-	Replace covers
	-	Replace sealant
	!	Seal tank
	!	Seal & Secure inspection pipe
	!	Seal electrical connections
	-	Assess system owner's use to identify atypical source
	2	**If Tank Access is Deemed Unacceptable**
	a	Repair/Replace Maintenance Hole Cover
	b	Repair/Replace Extensions (Risers)
	c	Repair/Replace Tank Insulation
	d	Repair/Replace locks & bolts
	e	Replace sealant
	i	Seal tank
	ii	Seal & Secure inspection pipe
	f	Assess Tank Settling
	3	**If Alarm is Deemed Unacceptable**
	a	Verify alarm is not on silent
	b	Evaluate power supply
	c	Repair/Replace Fuse
	d	Clear float obstruction in tank

		Identify knowledge necessary to complete the subtasks
Knowledge		**MPCA Requirements**
	1	7080.1900
	2	7080.1500 subp.4(A)
	3	7080.1500 subp.4(C)
	4	7080.1500 subp.5
	5	7080.1500 subp.6
	6	7080.1970 subp.A
	7	7080.1970 subp.B
	8	7080.1970 subp.C(1)
	9	7080.1970 subp.C(2)
	10	7080.1970 subp.C(3)
	11	7080.1970 subp.C(4)
	12	7080.2000 subp.D
	13	7080.2000 subp.G
	14	7080.2000 subp.H
	15	7080.2000 subp.K
	16	7080.2010 subp.1(A)
	17	7080.2010 subp.3(A)(2)
	18	7080.2010 subp.A
	19	7080.2010 subp.C
	20	7080.2150 subp.3(B)
	21	7080.2270 subp.10
	22	7080.2270 subp.11
	23	7080.2270 subp.8
	24	7080.2270 subp.9
	25	7080.2290 subp.B
	26	7080.2290 subp.C
	27	7080.2290 subp.D
	28	7080.2290 subp.E
	29	7080.2290 subp.F
		pg 69

	Describe how you must behave to complete the subtasks
Attitudes	

Subtas			Knowlec				
	e	Adjust float		30	7080.2450 subp.1		
	f	Repair/Replace Float		31	7080.2450 subp.2(A)		
	4	**If Current Tank Operating Conditions Is Deemed Unacceptable**		32	7080.2450 subp.2(B)	Interpersonal Skills	Identify the skills necessary for interacting with other people in order to complete the subtasks
				33	7080.2450 subp.3(A)		
	a	If low liquid levels,		34	7080.2450 subp.3(B)		
	i	Assess watertightness		35	7080.2450 subp.3(C)		
	ii	Refer homeowner to consult installer, as necessary		36	7080.2450 subp.5	1	Inform home owner of issues arising from unacceptable assessment before action is taken
	b	If high liquid levels,			**Learning Objectives**		
	i	Adjust alarm ?					
	ii	Adjust pumping schedule					
	iii	Assess watertightness					
	iv	Assess homeowner use					
	v	Assess plumbing leak inside house					
	5	**If Tank Structural Condition is Deemed Unacceptable**					
	a	Add venting					
	b	If not watertight, refer homeowner to consult installer					
	c	If unsafe, refer homeowner to consult installer					

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Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

2. Troubleshoot grease trap operation

	List sequenced order of steps to complete the master task
1	**If Conditions at Tank are Deemed Unacceptable**
a	If odor is found within 10 ft of perimeter of system
i	Locate source of odor
ii	If natural plumbing is source of odor, refer homeowner to plumber
iii	If SSTS is source of odor,
-	Replace caps
-	Replace covers
-	Replace sealant
!	Seal tank
!	Seal & Secure inspection pipe
!	Seal electrical connections
-	Assess system owner's use to identify atypical source
2	**If Tank Access is Deemed Unacceptable**
a	Repair/Replace Maintenance Hole Cover
b	Repair/Replace Extensions (Risers)
c	Repair/Replace Tank Insulation
d	Repair/Replace locks & bolts
e	Replace sealant
i	Seal tank
ii	Seal & Secure inspection pipe
f	Assess Tank Settling
3	**If Alarm is Deemed Unacceptable**
a	Verify alarm is not on silent
b	Evaluate power supply
c	Repair/Replace Fuse
d	Clear float obstruction in tank
e	Adjust float

Knowledge

	Identify knowledge necessary to complete the subtasks
	MPCA Requirements
1	7080.1900
2	7080.1500 subp.4(A)
3	7080.1500 subp.4(C)
4	7080.1500 subp.5
5	7080.1500 subp.6
6	7080.1970 subp.A
7	7080.1970 subp.B
8	7080.1970 subp.C(1)
9	7080.1970 subp.C(2)
10	7080.1970 subp.C(3)
11	7080.1970 subp.C(4)
12	7080.2000 subp.D
13	7080.2000 subp.G
14	7080.2000 subp.H
15	7080.2000 subp.K
16	7080.2010 subp.1(A)
17	7080.2010 subp.3(A)(2)
18	7080.2010 subp.A
19	7080.2010 subp.C
20	7080.2150 subp.3(B)
21	7080.2270 subp.10
22	7080.2270 subp.11
23	7080.2270 subp.8
24	7080.2270 subp.9
25	7080.2290 subp.B
26	7080.2290 subp.C
27	7080.2290 subp.D
28	7080.2290 subp.E
29	7080.2290 subp.F
30	7080.2450 subp.1

Attitudes

	Describe how you must behave to complete the subtasks

Skills

	Identify the skills necessary for interacting with other people in order to complete the subtasks
1	Inform home owner of issues arising from unacceptable assessment before action is taken

f	Repair/Replace Float	Knowled	31	7080.2450 subp.2(A)	Interpersonal Skills	
4	**If Current Tank Operating Conditions Are Deemed Unacceptable**		32	7080.2450 subp.2(B)		
			33	7080.2450 subp.3(A)		
			34	7080.2450 subp.3(B)		
a	If low liquid levels,		35	7080.2450 subp.3(C)		
i	Assess watertightness		36	7080.2450 subp.5		
ii	Refer homeowner to consult installer, as necessary					
b	If high liquid levels,					
i	Adjust alarm ?					
ii	Adjust pumping schedule					
iii	Assess watertightness					
iv	Assess homeowner use					
v	Assess plumbing leak inside house					
c	If no clear zone,					
i	Assess homeowner use					
ii	Adjust pumping schedule					
d	If too much scum, sludge, or poor color					
i	Adjust pumping schedule					
ii	Assess homeowner use					
5	**If Condition of Baffles is Deemed Unacceptable**					
a	Repair Baffles					
b	Replace Baffles					
6	**If Effluent Screen is Deemed Unacceptable**					
a	Clean Screen					
b	Repair/Replace Screen					
c	Reschedule Screen Maintenance					
d	Using design, Verify Screen is Sized					
e	Assess homeowner use					
7	**If Tank Structural Condition is Deemed Unacceptable**					
a	Add venting					
b	If not watertight, refer homeowner to consult installer					
c	If unsafe, refer homeowner to consult installer					

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

3. Troubleshoot septic tank operation

	List sequenced order of steps to complete the master task
1	**If Conditions at Tank are Deemed Unacceptable**
a	If odor is found within 10 ft of perimeter of system
i	Locate source of odor
ii	If natural plumbing is source of odor, refer homeowner to plumber
iii	If SSTS is source of odor,
-	Replace caps
-	Replace covers
-	Replace sealant
!	Seal tank
!	Seal & Secure inspection pipe
!	Seal electrical connections
-	Assess system owner's use to identify atypical source
2	**If Tank Access is Deemed Unacceptable**
a	Repair/Replace Maintenance Hole Cover
b	Repair/Replace Extensions (Risers)
c	Repair/Replace Tank Insulation
d	Repair/Replace locks & bolts
e	Replace sealant
i	Seal tank
ii	Seal & Secure inspection pipe
f	Assess Tank Settling
3	**If Alarm is Deemed Unacceptable**
a	Verify alarm is not on silent
b	Evaluate power supply
c	Repair/Replace Fuse
d	Clear float obstruction in tank
e	Adjust float

Knowledge

	Identify knowledge necessary to complete the subtasks
	MPCA Requirements
1	7080.1900
2	7080.1500 subp.4(A)
3	7080.1500 subp.4(C)
4	7080.1500 subp.5
5	7080.1500 subp.6
6	7080.1970 subp.A
7	7080.1970 subp.B
8	7080.1970 subp.C(1)
9	7080.1970 subp.C(2)
10	7080.1970 subp.C(3)
11	7080.1970 subp.C(4)
12	7080.2000 subp.D
13	7080.2000 subp.G
14	7080.2000 subp.H
15	7080.2000 subp.K
16	7080.2010 subp.1(A)
17	7080.2010 subp.3(A)(2)
18	7080.2010 subp.A
19	7080.2010 subp.C
20	7080.2150 subp.3(B)
21	7080.2270 subp.10
22	7080.2270 subp.11
23	7080.2270 subp.8
24	7080.2270 subp.9
25	7080.2290 subp.B
26	7080.2290 subp.C
27	7080.2290 subp.D
28	7080.2290 subp.E
29	7080.2290 subp.F
30	7080.2450 subp.1

Attitudes

	Describe how you must behave to complete the subtasks

Skills

	Identify the skills necessary for interacting with other people in order to complete the subtasks
1	Inform home owner of issues arising from unacceptable assessment before action is taken

f	Repair/Replace Float	Knowled	31	7080.2450 subp.2(A)	Interpersonal Skills	
4	**If Current Tank Operating Conditions Are Deemed Unacceptable**		32	7080.2450 subp.2(B)		
			33	7080.2450 subp.3(A)		
			34	7080.2450 subp.3(B)		
a	If low liquid levels,		35	7080.2450 subp.3(C)		
i	Assess watertightness		36	7080.2450 subp.5		
ii	Refer homeowner to consult installer, as necessary					
b	If high liquid levels,					
i	Adjust alarm ?					
ii	Adjust pumping schedule					
iii	Assess watertightness					
iv	Assess homeowner use					
v	Assess plumbing leak inside house					
c	If no clear zone,					
i	Assess homeowner use					
ii	Adjust pumping schedule					
d	If too much scum, sludge, or poor color					
i	Adjust pumping schedule					
ii	Assess homeowner use					
5	**If Condition of Baffles is Deemed Unacceptable**					
a	Repair Baffles					
b	Replace Baffles					
6	**If Effluent Screen is Deemed Unacceptable**					
a	Clean Screen					
b	Repair/Replace Screen					
c	Reschedule Screen Maintenance					
d	Using design, Verify Screen is Sized					
e	Assess homeowner use					
7	**If Tank Structural Condition is Deemed Unacceptable**					
a	Add venting					
b	If not watertight, refer homeowner to consult installer					
c	If unsafe, refer homeowner to consult installer					

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

4. Troubleshoot pump tank operation

ks

	List sequenced order of steps to complete the master task
1	**If Conditions at Tank Are Deemed Unacceptable**
a	If odor is found within 10 ft of perimeter of system
i	Locate source of odor
ii	If natural plumbing is source of odor, refer homeowner to plumber
iii	If SSTS is source of odor,
-	Replace caps
-	Replace covers
-	Replace sealant
!	Seal tank
!	Seal & Secure inspection pipe
!	Seal electrical connections
-	Assess system owner's use to identify atypical source
2	**If Tank Access is Deemed Unacceptable**
a	Repair/Replace Maintenance Hole Cover
b	Repair/Replace Extensions (Risers)
c	Repair/Replace Tank Insulation
d	Repair/Replace locks & bolts
e	Replace sealant
i	Seal tank
ii	Seal & Secure inspection pipe
f	Assess Tank Settling
3	**If Current Tank Operating Conditions Are Deemed Unacceptable**
a	If low liquid levels,
b	Assess watertightness
c	Refer homeowner to consult installer, as necessary

dge

	Identify knowledge necessary to complete the subtasks
	MPCA Requirements
1	7080.1900
2	7080.1500 subp.4(A)
3	7080.1500 subp.4(C)
4	7080.1500 subp.5
5	7080.1500 subp.6
6	7080.1970 subp.A
7	7080.1970 subp.B
8	7080.1970 subp.C(1)
9	7080.1970 subp.C(2)
10	7080.1970 subp.C(3)
11	7080.1970 subp.C(4)
12	7080.2000 subp.D
13	7080.2000 subp.G
14	7080.2000 subp.H
15	7080.2000 subp.K
16	7080.2010 subp.1(A)
17	7080.2010 subp.3(A)(2)
18	7080.2010 subp.A
19	7080.2010 subp.C
20	7080.2100 subp.2(A)
21	7080.2100 subp.2(D)
22	7080.2100 subp.2(E)
23	7080.2100 subp.2(F)
24	7080.2100 subp.3(A)
25	7080.2100 subp.3(B)
26	7080.2100 subp.3(C)
27	7080.2100 subp.4(A)
28	7080.2100 subp.4(B)
29	7080.2100 subp.4(C)
30	7080.2100 subp.4(D)

Attitudes

Describe how you must behave to complete the subtasks

Subtas		
	d	If high liquid levels,
	e	Adjust alarm ?
	f	Adjust pumping schedule
	g	Assess watertightness
	h	Assess homeowner use
	i	Assess plumbing leak inside house
	4	**If Pump or Siphon are Deemed Unacceptable**
	a	Verify Proper Location of Pump
	b	Replace Pump Block
	c	Repair/Replace pull chain/rope
	5	**If Discharge Assembly is Deemed Unacceptable**
	a	Add weep hole
	b	If weep hole plugged, clear plug
	c	Clean Inline Screen
	d	Repair/Replace Inline Screen
	6	**If Seal and Watertightness of Electrical Components are Deemed Unacceptable**
	a	Seal Component Connections
	b	Refer homeowner to consult electrician, as necessary
	7	**If Tank Structural Condition Is Deemed Unacceptable**
	a	Add venting
	b	If not watertight, refer homeowner to consult installer
	c	If unsafe, refer homeowner to consult installer
	8	**If Solids Accumulating,**
	a	Adjust pumping schedule
	b	Assess homeowner use
	c	Refer homeowner to consult designer and/or installer

Knowlec		
	31	7080.2150 subp.3(B)
	32	7080.2210 subp.1(C)
	33	7080.2230 subp.1(D)
	34	7080.2260 subp.1(C)
	35	7080.2270 subp.1(C)
	36	7080.2270 subp.10
	37	7080.2270 subp.11
	38	7080.2270 subp.8
	39	7080.2270 subp.9
	40	7080.2300 subp.1(C)
	41	7080.2450 subp.1
	42	7080.2450 subp.2(A)
	43	7080.2450 subp.2(B)
	44	7080.2450 subp.3(A)
	45	7080.2450 subp.3(B)
	46	7080.2450 subp.3(C)
	47	7080.2450 subp.3(D)
	48	7080.2450 subp.5
		Learning Objectives

Interpersonal Skills		
		Identify the skills necessary for interacting with other people in order to complete the subtasks
	1	Inform home owner of issues arising from unacceptable assessment before action is taken

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

5. Troubleshoot demand-dosed pump/control system operation

Tasks

	List sequenced order of steps to complete the master task
1	**If Controls Are Deemed Unacceptable**
a	Verify meter disc is spinning
b	Verify power at all breakers & fuses with
c	volt meter
d	If breakers tripped, reset breaker
e	If fuses open, replace fuse
f	If relay tripped, reset relay and check if pump current is within range of relay
g	If current exceeds relay, replace or repair pump
h	If current does not exceed relay, open lift station to verify pump operation
i	Check for float operation
j	Check for objects jamming impeller
k	Check pump piping
l	If relay not tripped, open lift station to verify pump operation
m	If pump not operating, replace or repair pump
n	If pump is operating, restore pump panel to auto
o	Replace Control Panel
p	Check gages
q	If cycles per day unacceptable,
i	Check hydraulic condition of drainfield
ii	Verify float levels are set correctly
iii	Assess owner use
iv	Assess inflow
v	Investigate history of wet weather events
r	Test meter

Knowledge

	Identify knowledge necessary to complete the subtasks
	MPCA Requirements
1	7080.1500 subp.4(A)
2	7080.1500 subp.4(C)
3	7080.1500 subp.5
4	7080.1500 subp.6
5	7080.2450 subp.1
	Learning Objectives

Attitudes

	Describe how you must behave to complete the subtasks

Skills

	Identify the skills necessary for interacting with other people in order to complete the subtasks
1	Inform home owner of issues arising from unacceptable assessment before action is taken

Subtas		Knowlec	Interpersonal Skills
s	Repair/Replace Meter		
t	Repair/Replace light bulbs		
u	Repair/Replace fuses		
v	Replace batteries		
w	Replace lightening arrester		
x	Assess exflow		
y	Assess drainback		
z	Verify pump is sized correctly		
aa	If enclosure not watertight & secure,		
i	Seal & secure enclosure		
bb	If telemetry unacceptable,		
i	Reset/Reboot		
ii	Consult with product manufacturer and/or designer		
2	**If Pump / Siphon Is Deemed Unacceptable**		
a	Repair Pump if greater than 1 hp		
b	Replace Pump if less or equal to 1 hp		
c	Using design, verify pump is sized correctly		
d	Repair/Replace siphon		
e	Verify multiple pumps are sequencing correctly		
3	**If Water Level Sensors are Deemed Unacceptable**		
a	Repair/Replace water level sensors		
b	Clear sensors from obstruction		
c	Reset sensors to meet design		
d	Adjust sensors to meet actual use		
e	Secure sensors		

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

6. Troubleshoot timed-dosed pump/control system operation

Tasks

	List sequenced order of steps to complete the master task
1	**If Controls Are Deemed Unacceptable**
a	Verify meter disc is spinning
b	Verify power at all breakers & fuses with volt meter
c	
d	If breakers tripped, reset breaker
e	If fuses open, replace fuse
f	If relay tripped, reset relay and check if pump current is within range of relay
g	If current exceeds relay, replace or repair pump
h	If current does not exceed relay, open lift station to verify pump operation
i	Check for float operation
j	Check for objects jamming impeller
k	Check pump piping
l	If relay not tripped, open lift station to verify pump operation
m	If pump not operating, replace or repair pump
n	If pump is operating, restore pump panel to auto
o	Replace Control Panel
p	Check gages
q	If cycles per day unacceptable,
i	Check hydraulic condition of drainfield
ii	Verify timer to set to meet design
iii	Adjust timer to meet actual use
iv	Assess owner use
v	Assess inflow
vi	Investigate history of wet weather events

Knowledge

	Identify knowledge necessary to complete the subtasks
	MPCA Requirements
1	7080.1500 subp.4(A)
2	7080.1500 subp.4(C)
3	7080.1500 subp.5
4	7080.1500 subp.6
5	7080.2300 subp.E
6	7080.2450 subp.1
	Learning Objectives

Attitudes

	Describe how you must behave to complete the subtasks

Skills

	Identify the skills necessary for interacting with other people in order to complete the subtasks
1	Inform home owner of issues arising from unacceptable assessment before action is taken

Subtas		Knowlec	Interpersonal Skills
r	Test meter		
s	Repair/Replace Meter		
t	Repair/Replace light bulbs		
u	Repair/Replace fuses		
v	Replace batteries		
w	Replace lightening arrester		
x	Assess exflow		
y	Assess drainback		
z	Verify pump is sized correctly		
aa	If enclosure not watertight & secure,		
i	Seal & secure enclosure		
bb	If telemetry unacceptable,		
i	Reset/Reboot		
ii	Consult with product manufacturer and/or designer		
2	**If Pump / Siphon Is Deemed Unacceptable**		
a	Repair Pump if greater than 1 hp		
b	Replace Pump if less or equal to 1 hp		
c	Using design, verify pump is sized correctly		
d	Repair/Replace siphon		
e	Verify multiple pumps are sequencing correctly		
3	**If Water Level Sensors are Deemed Unacceptable**		
a	Repair/Replace water level sensors		
b	Clear sensors from obstruction		
c	Reset sensors to meet design		
d	Adjust sensors to meet actual use		
e	Secure sensors		

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Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

7. Troubleshoot gravity distribution operation

		List sequenced order of steps to complete the master task
ks	1	**If Conditions at the Drainfield Site Are Deemed Unacceptable**
	a	If odor is found within 10 ft of perimeter of system
	i	Locate source of odor
	ii	If natural plumbing is source of odor, refer homeowner to plumber
	iii	If SSTS is source of odor,
	-	Replace caps
	-	Replace covers
	-	Replace sealant
	!	Seal tank
	!	Seal & Secure inspection pipe
	!	Seal electrical connections
	-	Assess system owner's use to identify atypical source
	b	If leaks above/around surface,
	i	Assess system owner's use to identify actual loading rates
	ii	Refer homeowner to consult designer and/or installer
	iii	Divert surface with berm
	iv	Assess distribution operation
	c	If vegetation inappropriate or excessive,
	i	Identify surfacing sewage
	ii	Refer homeowner to complete themselves
	iii	Assess freezing
	2	**If Distribution Device Deemed Unacceptable**
	a	Assess watertightness
	b	Assess security of inspection ports

		Identify knowledge necessary to complete the subtasks
dge		**MPCA Requirements**
	1	7080.1500 subp.4(A)
	2	7080.1500 subp.4(C)
	3	7080.1500 subp.5
	4	7080.1500 subp.6
	5	7080.2050 subp.1
	6	7080.2050 subp.3(B)(1)
	7	7080.2050 subp.3(B)(2)
	8	7080.2050 subp.3(B)(3)
	9	7080.2050 subp.3(B)(5)
	10	7080.2050 subp.3(D)(1)
	11	7080.2050 subp.3(D)(2)
	12	7080.2050 subp.3(D)(3)
	13	7080.2150 subp.3(J)
	14	7080.2210 subp.4(B)
	15	7080.2210 subp.4(E)
	16	7080.2450 subp.1
		Learning Objectives

	Describe how you must behave to complete the subtasks
Attitudes	

Subtas		
	c	Refer homeowner to consult maintainer and/or installer
	3	**If Lateral(s) Is / Are Deemed Unacceptable**
	a	Cap lateral to temporarily take out of operation
	b	If ponding,
	i	Inform homeowner to consult designer and/or installer
	c	If surfacing,
	i	Report to homeowner and LUG
	ii	Repair
	iii	Replace
	iv	Cap lateral to temporarily take out of operation
	v	Assess system owner's use to identify actual loading rates
	4	**If Inspection Ports are Deemed Unacceptable**
	a	Repair/Replace/Secure inspection pipes
	5	**If Switching Valves Are Deemed Unacceptable**
	a	Adjust valve operation

Knowlec	

Interpersonal Skills		Identify the skills necessary for interacting with other people in order to complete the subtasks
	1	Inform home owner of issues arising from unacceptable assessment before action is taken

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

8. Troubleshoot pressure distribution operation

ks

	List sequenced order of steps to complete the master task
1	**If Conditions at the Pressurized Drainfield Are Deemed Unacceptable**
a	If odor is found within 10 ft of perimeter of system
i	Locate source of odor
ii	If natural plumbing is source of odor, refer homeowner to plumber
iii	If SSTS is source of odor,
-	Replace caps
-	Replace covers
-	Replace sealant
!	Seal tank
!	Seal & Secure inspection pipe
!	Seal electrical connections
-	Assess system owner's use to identify atypical source
b	If leaks above/around surface,
i	Assess system owner's use to identify actual loading rates
ii	Refer homeowner to consult designer and/or installer
iii	Divert surface with berm
iv	Assess distribution operation
c	If vegetation inappropriate or excessive,
i	Identify surfacing sewage
ii	Refer homeowner to complete themselves
iii	Assess freezing
2	**If Supply Line is Deemed Unacceptable**
a	Replace air relief valve
b	Refer homeowner to consult installer
3	**If Switching Valves are Deemed**

dge

	Identify knowledge necessary to complete the subtasks
	MPCA Requirements
1	7080.1500 subp.4(A)
2	7080.1500 subp.4(C)
3	7080.1500 subp.5
4	7080.1500 subp.6
5	7080.2050 subp.1
6	7080.2050 subp.2(A)
7	7080.2050 subp.4(F)
8	7080.2050 subp.4(J)
9	7080.2050 subp.B(2)
10	7080.2050 subp.B(4)
11	7080.2050 subp.B(8)
12	7080.2050 subp.D
13	7080.2150 subp.3(J)
14	7080.2220 subp.1(D)
15	7080.2450 subp.1
	Learning Objectives

Attitudes

	Describe how you must behave to complete the subtasks

Skills

	Identify the skills necessary for interacting with other people in order to complete the subtasks
1	Inform home owner of issues arising from unacceptable assessment before action is taken

Subtas		Knowlec	Interpersonal Skills
	Unacceptable		
a	Adjust valve operation		
4	**If Orifices Are Deemed Unacceptable**		
a	Replace pipe		
b	Replace orifice shield		

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Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

9. Troubleshoot at-grades & mounds operation

Tasks		List sequenced order of steps to complete the master task	Knowledge		Identify knowledge necessary to complete the subtasks	Attitudes	Describe how you must behave to complete the subtasks
	1	**If Conditions at the Drainfield Site Are Deemed Unacceptable**			**MPCA Requirements**		
	a	If odor is found within 10 ft of perimeter of system		1	7080.1500 subp.4(A)		
	i	Locate source of odor		2	7080.1500 subp.4(C)		
	ii	If natural plumbing is source of odor, refer homeowner to plumber		3	7080.1500 subp.5		
	iii	If SSTS is source of odor,		4	7080.1500 subp.6		
	-	Replace caps		5	7080.2050 subp.1		
	-	Replace covers		6	7080.2050 subp.2(A)		
	-	Replace sealant		7	7080.2050 subp.2(B)		
	!	Seal tank		8	7080.2050 subp.2(C)		
	!	Seal & Secure inspection pipe		9	7080.2050 subp.4(J)		
	!	Seal electrical connections		10	7080.2150 subp.3(J)		
	-	Assess system owner's use to identify atypical source		11	7080.2220 subp.3(O)		
	2	**If Media Surface Is Deemed Unacceptable**		12	7080.2220 subp.U		
	a	If ponding,		13	7080.2230 subp.3(G)		
	i	Clean media		14	7080.2230 subp.F		
	ii	Replace media		15	7080.2270 subp.7(B)		
	iii	Consult product manufacturer		16	7080.2450 subp.1		
	b	If settling,					
	i	Replace/Add media			**Learning Objectives**		
	c	If animal activity,					
	i	Consult pest control professional					
	3	**If Pressure Distribution Is Deemed Unacceptable**					
	a	Replace pipe					
	b	Replace orifice shield					
	4	**If Additional Requirements for Mounds Are Deemed Unacceptable**					

Subtas			Knowlec			
	a	Assess system owner's use to identify loading rate				
	5	**If Inspection Ports Are Deemed Unacceptable**				
	a	Repair/Replace/Secure inspection ports				
					Interpersonal Skills	Identify the skills necessary for interacting with other people in order to complete the subtasks
					1	Inform home owner of issues arising from unacceptable assessment before action is taken

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Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

10. Troubleshoot bottomless peat filter operation

Subtasks

	List sequenced order of steps to complete the master task
1	**If Conditions at the Drainfield Site Are Deemed Unacceptable**
a	If odor at media filter is unacceptable,
i	Assess ponding
ii	Assess external ventilation
iii	Assess owner use
2	**If Media Surface Is Deemed Unacceptable**
a	If ponding,
i	Clean media
ii	Replace media
iii	Consult product manufacturer
b	If settling,
i	Replace/Add media
c	If animal activity,
i	Consult pest control professional
3	**If Pressure Distribution Is Deemed Unacceptable**
a	Replace pipe
b	Replace orifice shield

Knowledge

	Identify knowledge necessary to complete the subtasks
	MPCA Requirements
1	7080.1500 subp.4(A)
2	7080.1500 subp.4(C)
3	7080.1500 subp.5
4	7080.1500 subp.6
5	7080.2050 subp.1
6	7080.2050 subp.2(A)
7	7080.2050 subp.2(B)
8	7080.2050 subp.2(C)
9	7080.2050 subp.4(J)
10	7080.2450 subp.1
	Learning Objectives

Attitudes

Describe how you must behave to complete the subtasks

Interpersonal Skills

	Identify the skills necessary for interacting with other people in order to complete the subtasks
1	Inform home owner of issues arising from unacceptable assessment before action is taken

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Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

11. Troubleshoot drip distribution operation

ks

	List sequenced order of steps to complete the master task
1	**If Conditions at the Drip Distribution Zone Are Deemed Unacceptable**
a	If odor is found within 10 ft of perimeter of system
i	Locate source of odor
ii	If natural plumbing is source of odor, refer homeowner to plumber
iii	If SSTS is source of odor,
-	Replace caps
-	Replace covers
-	Replace sealant
!	Seal tank
!	Seal & Secure inspection pipe
!	Seal electrical connections
-	Assess system owner's use to identify atypical source
b	If leaks above/around surface,
i	Assess system owner's use to identify actual loading rates
ii	Refer homeowner to consult designer and/or installer
iii	Divert surface with berm
iv	Assess distribution operation
c	If vegetation inappropriate or excessive,
i	Identify surfacing sewage
ii	Refer homeowner to complete themselves
iii	Assess freezing
2	**If Drip Filter Is Deemed Unacceptable**
a	Repair/Replace bypass flow
b	Replace bypass flow valve

dge

	Identify knowledge necessary to complete the subtasks
	MPCA Requirements
1	7080.1500 subp.4(A)
2	7080.1500 subp.4(C)
3	7080.1500 subp.5
4	7080.1500 subp.6
5	7080.2050 subp.1
6	7080.2050 subp.2(A)
7	7080.2050 subp.2(B)
8	7080.2050 subp.2(C)
9	7080.2150 subp.3(J)
10	7080.2450 subp.1
	Learning Objectives

Attitudes

	Describe how you must behave to complete the subtasks

	Identify the skills necessary for interacting with other people in order to complete the subtasks
1	Inform home owner of issues arising from unacceptable assessment before action is taken

Subtas		Knowlec	Interpersonal Skills
c	Replace/Add insulation		
3	**If Effluent Flow Metering Is Deemed Unacceptable**		
a	If gpd unacceptable,		
i	Increase flow		
4	**If Switching Valves Are Deemed Unacceptable**		
a	Adjust valve operation		

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Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

12. Troubleshoot aerobic treatment unit operation

	List sequenced order of steps to complete the master task
1	**If Conditions at the Aerobic Treatment Unit Are Deemed Unacceptable**
a	If odor is found within 10 ft of perimeter of system
i	Locate source of odor
ii	If natural plumbing is source of odor, refer homeowner to plumber
iii	If SSTS is source of odor,
-	Determine is arline has settled
-	Replace caps
-	Replace covers
-	Replace sealant
!	Seal tank
!	Seal & Secure inspection pipe
!	Seal electrical connections
-	Assess system owner's use to identify atypical source or unusual use
2	**If Accessibility to Aerobic Treatment Unit Is Deemed Unacceptable**
a	Repair/Replace Lid
b	Repair/Replace Extensions (Risers)
c	Repair/Replace ATU Insulation
d	Repair/Replace locks & bolts
e	Replace sealant
3	**If Venting / Air Supply Is Deemed Unacceptable**
a	Clean air filters/screen
b	Replace air filters/screen
c	Refer homeowner to consult electrician
d	Repair/Replace blower/compressor

	Identify knowledge necessary to complete the subtasks
	MPCA Requirements
1	7080.1500 subp.4(A)
2	7080.1500 subp.4(C)
3	7080.1500 subp.5
4	7080.1500 subp.6
5	7080.2050 subp.1
6	7080.2050 subp.2(A)
7	7080.2050 subp.2(B)
8	7080.2050 subp.2(C)
9	7080.2450 subp.1
	Learning Objectives

Attitudes	Describe how you must behave to complete the subtasks

	Identify the skills necessary for interacting with other people in order to complete the subtasks
1	Inform home owner of issues arising from unacceptable assessment before action is taken

e	Consult product manufacturer				
f	Clear venting line				
g	Clear air supply line				
h	Repair/Replace section of air supply line				
4	**If Aeration Chamber Is Deemed Unacceptable**				
a	If settleability unacceptable,				
i	Refer homeowner to consult maintainer				
ii	Reschedule pumping frequency				
iii	Verify manufacturer suggested maintenance has been completed				
b	If black color in aeration chamber,				
i	Assess system owner's use to identify atypical source				
ii	Boost digestible material				
iii	Assess time dosing schedule				
c	If clear color in aged system,				
i	Eliminate hydraulic overload				
d	If foaming and froathing,				
i	Install froth spray pump				
5	**If Media Is Deemed Unacceptable**				
a	If plugging and/or floating				
i	Assess system owner's use				
6	**If Clarification Chamber Is Deemed Unacceptable**				
a	If scum layer unacceptable,				
i	Refer system owner to consult maintainer				
ii	Evaluate interval from previous service				
iii	Assess system owner's use to identify atypical source				
iv	Reschedule pumping frequency				
b	If dissolved oxygen is low,				
i	Assess owner use				
ii	Assess air supply				
c	If pH unacceptable,				
i	Assess owner use				

Subtasks		Knowledge	Interpersonal Skills
d	If temperature unacceptable,		
i	Seal		
ii	Add insulation		
iii	Assess plumbing leaks inside home		
e	If effluent odor and/or color is unacceptable,		
i	Assess owner use		
ii	Assess air supply		
f	If turbidity is unacceptable,		
i	Assess owner use		
ii	Assess media cleanliness		
7	**If Sludge Return Operation is Deemed Unacceptable**		
a	Repair/Replace pump		
b	Verify sludge wasting rate is set to meet design		
c	Adjust sludge wasting rate to meet actual use		
8	**If Control Panel Is Deemed Unacceptable**		
a	Verify meter disc is spinning		
b	Verify power at all breakers & fuses with		
c	volt meter		
d	If breakers tripped, reset breaker		
e	If fuses open, replace fuse		
f	If relay tripped, reset relay and check if pump current is within range of relay		
g	If current exceeds relay, replace or repair pump		
h	If current does not exceed relay, open lift station to verify pump operation		
i	Check for float operation		
j	Check for objects jamming impeller		
k	Check pump piping		
l	If relay not tripped, open lift station to verify pump operation		
m	If pump not operating, replace or repair pump		

n	If pump is operating, restore pump panel to auto				
o	Replace Control Panel				
p	Check gages				
s	Repair/Replace Meter				
t	Repair/Replace light bulbs				
u	Repair/Replace fuses				
v	Replace batteries				
w	Replace lightening arrester				
z	Verify pump is sized correctly				
aa	If enclosure not watertight & secure,				
i	Seal & secure enclosure				
ii	Consult with product manufacturer and/or designer				
9	**If Alarm is Deemed Unacceptable,**				
a	Replace batteries				
b	Replace lightening arrester				
c	If telemetry unacceptable,				
i	Reset/Reboot				
ii	Consult with product manufacturer and/or designer				

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

13. Troubleshoot media filter operation

	List sequenced order of steps to complete the master task		Identify knowledge necessary to complete the subtasks	Attitudes	Describe how you must behave to complete the subtasks
1	**If Conditions at Media Filter Are Deemed Unacceptable**		**MPCA Requirements**		
		1	7080.1500 subp.4(A)		
a	If odor at media filter is unacceptable,	2	7080.1500 subp.4(C)		
i	Assess ponding	3	7080.1500 subp.5		
ii	Assess external ventilation	4	7080.1500 subp.6		
iii	Assess owner use	5	7080.2050 subp.1		
iv	Assess media cell	6	7080.2050 subp.2(A)		
	Assess lid seal	7	7080.2050 subp.2(B)		
2	**If Cover Is Deemed Unacceptable**	8	7080.2050 subp.2(C)		
a	Repair/Replace cover	9	7080.2050 subp.4(J)		
b	Secure cover	10	7080.2450 subp.1		
3	**If Venting / Air Supply Is Deemed Unacceptable**		**Learning Objectives**		
a	Clean air filters/screen				
b	Replace air filters/screen				
c	Refer homeowner to consult electrician				
d	Repair/Replace blower/compressor				
e	Consult product manufacturer				
f	Clear venting line				
g	Clear air supply line				
h	Repair/Replace section of air supply line				
4	**If Media Surface Deemed Unacceptable**				
a	If ponding,				
i	Clean media				
ii	Replace media				
iii	Troubleshoot underdrain				
iv	Troubleshoot soil treatment system				
v	Consult product manufacturer				
b	If settling,				
i	Replace/Add media				Identify the skills necessary for
c	If animal activity,				interacting with other people in order

Subtasks			Knowledge		nal Skills	
	i	Consult pest control professional				to complete the subtasks
	5	**If Effluent Quality Is Deemed Unacceptable**			1	Inform home owner of issues arising from unacceptable assessment before action is taken
	a	If turbidity is unacceptable,				
	i	Assess owner use				
	ii	Assess media cleanliness				
	b	If oily film is unacceptable,				
	i	Assess owner use				
	c	If dissolved oxygen is low,				
	i	Assess owner use				
	ii	Assess air supply				
	d	If pH unacceptable,				
	i	Assess owner use				
	e	If temperature unacceptable,				
	i	Verify recirculation ratio us set to meet design				
	ii	Adjust recirculation ration to meet actual use				
	iii	Seal				
	iv	Add insulation				
	v	Assess plumbing leaks inside home				
	f	If bypass or overflow unacceptable,				
	i	Assess owner use				
	ii	Replace media				
	g	If effluent odor and/or color is unacceptable,				
	i	Assess owner use				
	ii	Assess air supply				
	6	**If Pressure Distribution Is Deemed Unacceptable**				
	a	Replace pipe				
	b	Replace orifice shield				
	7	**If Gravity Distribution Deemed Unacceptable**				
	a	Repair settled pipes				
	b	Calibrate device				
	c	Replace/Repair device				
	8	**If Filter Drainage Systems Are Deemed Unacceptable**				
	a	If ponding in sump float,				

i	Replace/Repair pump			Interperson	
ii	Clear drainage pipe				
iii	Clean sump area				
iv	Clear obstruction from vent				
9	**If Additional Tasks for Recirculating Filters are Deemed Unacceptable**				
a	If dissolved oxygen is high,				
i	Assess recirculation ration				
b	If dissolved oxygen is low,				
i	Assess owner use				
ii	Assess air supply				

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

14. Troubleshoot constructed wetland operation

ks

	List sequenced order of steps to complete the master task
1	**If Conditions at the Constructed Wetland Are Deemed Unacceptable**
a	If odor at media filter is unacceptable,
i	Assess ponding
ii	Assess external ventilation
iii	Assess owner use
b	If border material unacceptable,
i	Repair/Replace border material
c	If water/soil entering wetland,
i	Repair/Replace liner
ii	Refer homeowner to consult pest control professional
2	**If Water Level Management Is Deemed Unacceptable**
a	If header distribution plugged,
i	Clean header distribution
b	If water level adjustment needed,
i	Adjust water level
3	**If Vegetation Is Deemed Unacceptable**
a	Remove/Replace Vegetation
4	**If Effluent Quality Is Deemed Unacceptable**
a	If turbidity is unacceptable,
i	Assess owner use
ii	Assess media cleanliness
b	If oily film is unacceptable,
i	Assess owner use
c	If dissolved oxygen is low,
i	Assess owner use
ii	Assess air supply
d	If pH unacceptable,

dge

	Identify knowledge necessary to complete the subtasks
	MPCA Requirements
1	7080.1500 subp.4(A)
2	7080.1500 subp.4(C)
3	7080.1500 subp.5
4	7080.1500 subp.6
5	7080.2050 subp.1
6	7080.2050 subp.2(A)
7	7080.2050 subp.2(B)
8	7080.2050 subp.2(C)
9	7080.2150 subp.3(J)
10	7080.2450 subp.1
	Learning Objectives

Attitudes

	Describe how you must behave to complete the subtasks

Identify the skills necessary for interacting with other people in order to complete the subtasks

1	Inform home owner of issues arising from unacceptable assessment before action is taken

Subtas		Knowlec	Interpersonal Skills
i	Assess owner use		
e	If temperature unacceptable,		
i	Seal		
ii	Add insulation		
iii	Assess plumbing leaks inside home		
f	If bypass or overflow unacceptable,		
i	Assess owner use		
ii	Replace media		
g	If effluent odor and/or color is unacceptable		
i	Assess owner use		
ii	Assess air supply		
5	**If Additional Tasks for Subsurface Flow Wetlands Are Deemed Unacceptable**		
a	Lower water level		
b	Add media		
6	**If Inspection Ports Are Deemed Unacceptable**		
a	Repair/Replace/Secure inspection port		

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

15. Troubleshoot chlorination disinfection unit operation

Subtasks

	List sequenced order of steps to complete the master task
1	**If Operation of Chlorination System Is Deemed Unacceptable**
2	**If Tablet Chlorination Is Deemed Unacceptable**
3	**If Liquid Chlorinator Is Deemed Unacceptable**
4	**If Tablet Chlorination Is Deemed Unacceptable**
5	**If Control Panel Is Deemed Unacceptable**
	Are you a chlorination expert?
	Please call Jane @ MPCA 651-297-1605

Knowledge

	Identify knowledge necessary to complete the subtasks
	MPCA Requirements
1	7080.1500 subp.4(A)
2	7080.1500 subp.4(C)
3	7080.1500 subp.5
4	7080.1500 subp.6
5	7080.2050 subp.1
6	7080.2050 subp.2(A)
7	7080.2050 subp.2(B)
8	7080.2050 subp.2(C)
9	7080.2450 subp.1
	Learning Objectives

Attitudes

	Describe how you must behave to complete the subtasks

Interpersonal Skills

	Identify the skills necessary for interacting with other people in order to complete the subtasks
1	Inform home owner of issues arising from unacceptable assessment before action is taken

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

16. Troubleshoot UV disinfection unit operation

ks

	List sequenced order of steps to complete the master task
1	**If Power Supply Is Deemed Unacceptable**
a	Refer homeowner to consult with electrician
2	**If UV Controls Are Deemed Unacceptable**
a	Repair/Replace alarm
3	**If Contact Chamber, Lamp or Sleeve Conditions Are Deemed Unacceptable**
a	Repair/Replace contact chamber
b	Replace lamp
c	Replace sleeve
4	**If Influent Characteristics Are Deemed Unacceptable**
a	If turbidity unacceptable,
i	Troubleshoot treatment component up treatment train
b	If flow rate is too high,
i	Lower flow rate
5	**If Control Panel Is Deemed Unacceptable**
a	Verify meter disc is spinning
b	Verify power at all breakers & fuses with
c	volt meter
d	If breakers tripped, reset breaker
e	If fuses open, replace fuse
f	If relay tripped, reset relay and check if pump current is within range of relay
g	If current exceeds relay, replace or repair pump
h	If current does not exceed relay, open lift

dge

	Identify knowledge necessary to complete the subtasks
	MPCA Requirements
1	7080.1500 subp.4(A)
2	7080.1500 subp.4(C)
3	7080.1500 subp.5
4	7080.1500 subp.6
5	7080.2050 subp.1
6	7080.2050 subp.2(A)
7	7080.2050 subp.2(B)
8	7080.2050 subp.2(C)
9	7080.2450 subp.1
	Learning Objectives

Attitudes

	Describe how you must behave to complete the subtasks

Identify the skills necessary for interacting with other people in order to complete the subtasks

1	Inform home owner of issues arising from unacceptable assessment before action is taken

Subtas		Knowlec	Interpersonal Skills
	station to verify pump operation		
i	Check for float operation		
j	Check for objects jamming impeller		
k	Check pump piping		
l	If relay not tripped, open lift station to verify pump operation		
m	If pump not operating, replace or repair pump		
n	If pump is operating, restore pump panel to auto		
o	Replace Control Panel		
p	Check gages		
s	Repair/Replace Meter		
t	Repair/Replace light bulbs		
u	Repair/Replace fuses		
v	Replace batteries		
w	Replace lightening arrester		
z	Verify pump is sized correctly		
aa	If enclosure not watertight & secure,		
i	Seal & secure enclosure		
ii	Consult with product manufacturer and/or designer		
6	**If Housing Unit is Deemed Unacceptable**		
a	Clean housing unit		
b	Repair/Replace housing unit		

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

17. Troubleshoot privy

Subtasks

List sequenced order of steps to complete the master task

Knowledge

Identify knowledge necessary to complete the subtasks

MPCA Requirements

1 7080.1500 subp.6
2 7080.2280 subp.D
3 7080.2450 subp.4(B)

Learning Objectives

Attitudes

Describe how you must behave to complete the subtasks

Interpersonal Skills

Identify the skills necessary for interacting with other people in order to complete the subtasks

1 Inform home owner of issues arising from unacceptable assessment before action is taken

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

18. Troubleshoot building sewer, collection system, and supply pipe operation

Subtasks

	List sequenced order of steps to complete the master task
1	Troubleshoot gravity piping
2	Troubleshoot pressure piping
3	If collection system basins or tanks are deemed unacceptable
4	If pumps are deemed unacceptable
5	If pump panels are deemed unacceptable

Knowledge

	Identify knowledge necessary to complete the subtasks
	MPCA Requirements
a	7080.1500 subp.4(A)
b	7080.1500 subp.4(C)
c	7080.1500 subp.5
d	7080.1500 subp.6
	Learning Objectives

Attitudes

Describe how you must behave to complete the subtasks

Interpersonal Skills

	Identify the skills necessary for interacting with other people in order to complete the subtasks
1	Inform home owner of issues arising from unacceptable assessment before action is taken

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

D Determine if adjustment, repair, replacement, or upgrade is recommended or corrective action is required

Subtasks	Knowledge	Attitudes	Interpersonal Skills
List sequenced order of steps to complete the master task	Identify knowledge necessary to complete the subtasks	Describe how you must behave to complete the subtasks	Identify the skills necessary for interacting with other people in order to complete the subtasks
	MPCA Requirements		
	Learning Objectives		

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

1. Delegate unauthorized work to appropriately licensed designer, installer, maintainer, inspector, electrician, plumber, or other licensed professional

Subtasks	List sequenced order of steps to complete the master task	Knowledge	Identify knowledge necessary to complete the subtasks	Attitudes	Describe how you must behave to complete the subtasks
	A		**MPCA Requirements**		
		A	7080.1670		
		B	7083.0700		
		C			
		D			
		E			
			Learning Objectives		

Interpersonal Skills	Identify the skills necessary for interacting with other people in order to complete the subtasks

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

2. Comply with various repair, replacement, remediation, upgrade, and corrective action requirements in local ordinances

Subtasks

	List sequenced order of steps to complete the master task
A	

Knowledge

	Identify knowledge necessary to complete the subtasks
	MPCA Requirements
A	7080.1500 Subp. 6
B	7082.0100 Subp. 3 Item O
C	
D	
E	
	Learning Objectives

Attitudes

Describe how you must behave to complete the subtasks

Interpersonal Skills

Identify the skills necessary for interacting with other people in order to complete the subtasks

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

3. Properly abandon system with no future intent for use

Subtasks

List sequenced order of steps to complete the master task

A Properly abandon tank(s)

B Properly dispose or cover contaminated materials

C Complete, sign, and submit a record of abandonment to local program within 90 days

Knowledge

Identify knowledge necessary to complete the subtasks

MPCA Requirements

A

B

C

D

E

Learning Objectives

Attitudes

Describe how you must behave to complete the subtasks

terpersonal Skills

Identify the skills necessary for interacting with other people in order to complete the subtasks

In

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

4. Repair, replace, or upgrade maintenance hole riser and cover

Subtasks	List sequenced order of steps to complete the master task	Knowledge	Identify knowledge necessary to complete the subtasks	Attitudes	Describe how you must behave to complete the subtasks
	A		**MPCA Requirements**		
			Learning Objectives		

Interpersonal Skills	Identify the skills necessary for interacting with other people in order to complete the subtasks

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

5. Adjust, repair, replace, or upgrade sewage tank alarm sensors and controls

Subtasks	List sequenced order of steps to complete the master task	Knowledge	Identify knowledge necessary to complete the subtasks	Attitudes	Describe how you must behave to complete the subtasks
	A		**MPCA Requirements**		
		A			
		B			
		C			
		D			
		E			
			Learning Objectives		

Interpersonal Skills	Identify the skills necessary for interacting with other people in order to complete the subtasks

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

6. Repair, replace, or upgrade sewage tank baffle

Subtasks	List sequenced order of steps to complete the master task	Knowledge	Identify knowledge necessary to complete the subtasks	Attitudes	Describe how you must behave to complete the subtasks
A			**MPCA Requirements**		
		A			
		B			
		C			
		D			
		E			
			Learning Objectives		

Interpersonal Skills	Identify the skills necessary for interacting with other people in order to complete the subtasks

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

7. Repair, replace, or upgrade sewage tank effluent screen

Subtasks	List sequenced order of steps to complete the master task	Knowledge	Identify knowledge necessary to complete the subtasks	Attitudes	Describe how you must behave to complete the subtasks
	A		**MPCA Requirements**		
		A			
		B			
		C			
		D			
		E			
			Learning Objectives		

Interpersonal Skills	Identify the skills necessary for interacting with other people in order to complete the subtasks

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

8. Repair, replace, or upgrade sewage tank inspection pipe

Subtasks	List sequenced order of steps to complete the master task	Knowledge	Identify knowledge necessary to complete the subtasks	Attitudes	Describe how you must behave to complete the subtasks
	A		**MPCA Requirements**		
		A			
		B			
		C			
		D			
		E			
			Learning Objectives		

Interpersonal Skills	Identify the skills necessary for interacting with other people in order to complete the subtasks

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

9. Adjust, repair, or replace sewage pump

Subtasks	List sequenced order of steps to complete the master task	Knowledge	Identify knowledge necessary to complete the subtasks	Attitudes	Describe how you must behave to complete the subtasks
	A		**MPCA Requirements**		
		A			
		B			
		C			
		D			
		E			
			Learning Objectives		

Interpersonal Skills	Identify the skills necessary for interacting with other people in order to complete the subtasks

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

10. Adjust, repair, or replace siphon

Subtasks	List sequenced order of steps to complete the master task	Knowledge	Identify knowledge necessary to complete the subtasks	Attitudes	Describe how you must behave to complete the subtasks
A			**MPCA Requirements**		
		A			
		B			
		C			
		D			
		E			
			Learning Objectives		

Interpersonal Skills	Identify the skills necessary for interacting with other people in order to complete the subtasks

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

11. Adjust, repair, replace, or upgrade dosing floats, sensors, timers, or controls

Subtasks	List sequenced order of steps to complete the master task	Knowledge	Identify knowledge necessary to complete the subtasks	Attitudes	Describe how you must behave to complete the subtasks
	A		**MPCA Requirements**		
		A			
		B			
		C			
		D			
		E			
			Learning Objectives		

Interpersonal Skills	Identify the skills necessary for interacting with other people in order to complete the subtasks

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

12. Adjust or repair at-grades & mounds

Subtasks	List sequenced order of steps to complete the master task	Knowledge	Identify knowledge necessary to complete the subtasks	Attitudes	Describe how you must behave to complete the subtasks
A			**MPCA Requirements**		
		A			
		B			
		C			
		D			
		E			
			Learning Objectives		

Interpersonal Skills	Identify the skills necessary for interacting with other people in order to complete the subtasks

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

13. Adjust or repair bottomless peat filter and replace media

Subtasks

	List sequenced order of steps to complete the master task
A	

Knowledge

	Identify knowledge necessary to complete the subtasks
	MPCA Requirements
A	
B	
C	
D	
E	
	Learning Objectives

Attitudes

Describe how you must behave to complete the subtasks

Interpersonal Skills

Identify the skills necessary for interacting with other people in order to complete the subtasks

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

14. Adjust or repair drip distribution

Subtasks	List sequenced order of steps to complete the master task	Knowledge	Identify knowledge necessary to complete the subtasks	Attitudes	Describe how you must behave to complete the subtasks
A			**MPCA Requirements**		
		A			
		B			
		C			
		D			
		E			
			Learning Objectives		

Interpersonal Skills	Identify the skills necessary for interacting with other people in order to complete the subtasks

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

15. Adjust or repair aerobic treatment unit and replace media

Subtasks	List sequenced order of steps to complete the master task	Knowledge	Identify knowledge necessary to complete the subtasks	Attitudes	Describe how you must behave to complete the subtasks
	A		**MPCA Requirements**		
		A			
		B			
		C			
		D			
		E			
			Learning Objectives		

Interpersonal Skills	Identify the skills necessary for interacting with other people in order to complete the subtasks

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

16. Adjust or repair media filter and replace media

Subtasks	List sequenced order of steps to complete the master task	Knowledge	Identify knowledge necessary to complete the subtasks	Attitudes	Describe how you must behave to complete the subtasks
A			**MPCA Requirements**		
		A			
		B			
		C			
		D			
		E			
			Learning Objectives		

Interpersonal Skills	Identify the skills necessary for interacting with other people in order to complete the subtasks

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

17. Adjust or repair constructed wetland and replace media and vegetation

Subtasks	List sequenced order of steps to complete the master task	Knowledge	Identify knowledge necessary to complete the subtasks	Attitudes	Describe how you must behave to complete the subtasks
	A		**MPCA Requirements**		
		A			
		B			
		C			
		D			
		E			
			Learning Objectives		

Interpersonal Skills	Identify the skills necessary for interacting with other people in order to complete the subtasks

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

18. Adjust or repair chlorination disinfection unit and replace chlorine

Subtasks	List sequenced order of steps to complete the master task	Knowledge	Identify knowledge necessary to complete the subtasks	Attitudes	Describe how you must behave to complete the subtasks
	A		**MPCA Requirements**		
		A			
		B			
		C			
		D			
		E			
			Learning Objectives		

Interpersonal Skills	Identify the skills necessary for interacting with other people in order to complete the subtasks

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

19. Adjust or repair UV disinfection unit and replace bulbs

Subtasks

List sequenced order of steps to complete the master task

A

Knowledge

Identify knowledge necessary to complete the subtasks

MPCA Requirements

A
B
C
D
E

Learning Objectives

Attitudes

Describe how you must behave to complete the subtasks

Interpersonal Skills

Identify the skills necessary for interacting with other people in order to complete the subtasks

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

20. Adjust or repair privy

Subtasks

List sequenced order of steps to complete the master task

A

Knowledge

Identify knowledge necessary to complete the subtasks

MPCA Requirements

A
B
C
D
E

Learning Objectives

Attitudes

Describe how you must behave to complete the subtasks

Interpersonal Skills

Identify the skills necessary for interacting with other people in order to complete the subtasks

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

21. Steam or jet building sewer, collection system, supply pipe, and distribution system

Subtasks	List sequenced order of steps to complete the master task
A	

Knowledge	Identify knowledge necessary to complete the subtasks
	MPCA Requirements
A	
B	
C	
D	
E	
	Learning Objectives

Attitudes	Describe how you must behave to complete the subtasks

Interpersonal Skills	Identify the skills necessary for interacting with other people in order to complete the subtasks

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

22. Adjust water table monitoring device

Subtasks	List sequenced order of steps to complete the master task	Knowledge	Identify knowledge necessary to complete the subtasks	Attitudes	Describe how you must behave to complete the subtasks
A			**MPCA Requirements**		
		A			
		B			
		C			
		D			
		E			
			Learning Objectives		

Interpersonal Skills	Identify the skills necessary for interacting with other people in order to complete the subtasks

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

23. Adjust monitoring well(s)

Subtasks

	List sequenced order of steps to complete the master task
A	Verify Lids are On and Properly Secured

Knowledge

	Identify knowledge necessary to complete the subtasks
	MPCA Requirements
A	7080.1970 subp.C(1)
B	7080.1970 subp.C(2)
C	7080.1970 subp.C(3)
D	7080.1970 subp.C(4)
E	7080.2450 subp.3(C)
	Learning Objectives

Attitudes

Describe how you must behave to complete the subtasks

Interpersonal Skills

Identify the skills necessary for interacting with other people in order to complete the subtasks

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

1. Close tank(s)

Subtasks

	List sequenced order of steps to complete the master task
A	Verify Lids are On and Properly Secured

Knowledge

	Identify knowledge necessary to complete the subtasks
	MPCA Requirements
A	7080.1970 subp.C(1)
B	7080.1970 subp.C(2)
C	7080.1970 subp.C(3)
D	7080.1970 subp.C(4)
E	7080.2450 subp.3(C)
	Learning Objectives

Attitudes

Describe how you must behave to complete the subtasks

Interpersonal Skills

Identify the skills necessary for interacting with other people in order to complete the subtasks

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

2. Restore property

Subtasks

	List sequenced order of steps to complete the master task
A	Verify Controls Set in Appropriate Mode
B	Verify Power is Available to Requiring Components
C	Verify Lids are On and Properly Secured
D	Gather & Store Tools
E	Verify no Sewage is on Ground Surface
F	Leave Documentation for Facility Owner Verifying Your Visit

Knowledge

	Identify knowledge necessary to complete the subtasks
	MPCA Requirements
A	7080.1970 subp.C(1)
B	7080.1970 subp.C(2)
C	7080.1970 subp.C(3)
D	7080.1970 subp.C(4)
E	7080.2450 subp.3(C)
	Learning Objectives

Attitudes

Describe how you must behave to complete the subtasks

Interpersonal Skills

Identify the skills necessary for interacting with other people in order to complete the subtasks

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

3.Notify owner of necessary follow-up, timelines, and next visit

Subtasks		Knowledge		Attitudes	
	List sequenced order of steps to complete the master task		Identify knowledge necessary to complete the subtasks		Describe how you must behave to complete the subtasks
A	Update Form 1-1. System Description		**MPCA Requirements**		
		A	7080.1500 subp.6		
			Learning Objectives		

Interpersonal Skills	
	Identify the skills necessary for interacting with other people in order to complete the subtasks

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

A. Deem overall system condition as acceptable or unacceptable

Subtasks	List sequenced order of steps to complete the master task	Knowledge	Identify knowledge necessary to complete the subtasks	Attitudes	Describe how you must behave to complete the subtasks
A	Contact permitting authority		**MPCA Requirements**		
			Learning Objectives		

Interpersonal Skills	Identify the skills necessary for interacting with other people in order to complete the subtasks

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

B. Submit reports to permitting authority and system owner

Subtasks	List sequenced order of steps to complete the master task	Knowledge	Identify knowledge necessary to complete the subtasks	Attitudes	Describe how you must behave to complete the subtasks
A	Report sampling results		**MPCA Requirements**		
B	Report operational observations				
C	Report system adjustments		**Learning Objectives**		
D	Report other management activities in compliance with local ordinances, management plan or operating permit				
E	Report any noncompliance to owner & LUG in writing				

Interpersonal Skills	Identify the skills necessary for interacting with other people in order to complete the subtasks

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

C. Provide written reports of noncompliance to homeowner and local unit of government within 30 days

Subtasks	List sequenced order of steps to complete the master task	Knowledge	Identify knowledge necessary to complete the subtasks	Attitudes	Describe how you must behave to complete the subtasks
A	Complete Form 1-2. System Evaluation		**MPCA Requirements**		
			Learning Objectives		

Interpersonal Skills	Identify the skills necessary for interacting with other people in order to complete the subtasks

Minnesota Pollution Control Agency

Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

D. Provide certified signature on all opearational status determinations and compliance management activities

Subtasks	Knowledge	Attitudes	Interpersonal Skills
List sequenced order of steps to complete the master task	Identify knowledge necessary to complete the subtasks	Describe how you must behave to complete the subtasks	Identify the skills necessary for interacting with other people in order to complete the subtasks
	MPCA Requirements		
	Learning Objectives		