



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

Service Provider Task Analysis

	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 <u>CIDWT Service Provider Manual</u> 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 <u>CIDWT High Strength and Hydraulic Loading Manual</u>	
	IV.C.1	Document facility operation
	IV.C.2	Document water use habits

Service Provider Task Analysis

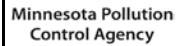
	IV.C.3	Document onsite wastewater treatment system details
	IV.D	Complete system evaluation (Form 1-2) from <u><i>CIDWT Service Provider Manual</i></u>
	IV.D.1	Determine design flow
	IV.D.2	Determine actual flow to system
	IV.E	Complete site assessment (Form 4-1) <u>from <i>CIDWT Service Provider Manual</i></u>
	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 <u><i>CIDWT Service Provider Manual</i></u> 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

Service Provider Task Analysis

		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	

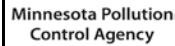
Service Provider Task Analysis

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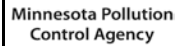
A. Complete Training

pg 1



B. Pass Certification Exam

pg 2

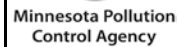


C. Apply for Certification

Skills	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 MPCA Form R		MPCA Requirements		
	2 Submit list of passed exams	1	7080.1670		
	3 Submit list of completed training courses	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		Identify the skills necessary for interacting with other people in order to complete the subtasks
		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		

Interpersonal Skills

Learning Objectives



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

D. Complete Continuing Education

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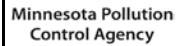
Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

II. Obtain Service Provider Business License

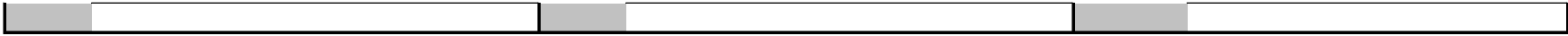
List sequenced order of steps to complete the master task		Identify knowledge necessary to complete the subtasks		Attitudes	Describe how you must behave to complete the subtasks
A	Complete Application		MPCA Requirements		
1	Complete License Application Form	1	7080.1670		
2	Submit Professional Surety Bond & Surety Company Power of Attorney	2	7083.0700 Subp.1.A		
		3	7083.0700 Subp.1.B		
3	Submit Certificate of General Liability Insurance	4	7083.0700 Subp.1.C		
		5	7083.0700 Subp.1.D		
4	Submit Workers Compensation Insurance or Complete Letter of Exemption	6	7083.0700 Subp.1.E		
		7	7083.0700 Subp.1.F		
5	Submit License Fee	8	7083.0700 Subp.1.G		
6	Submit Certificate of Employment for Designated Certified Professional	9	7083.0700 Subp.1.H		
		10	7083.0700 Subp.2		
B	Submit Renewal & Fee	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	Identify the skills necessary for interacting with other people in order to complete the subtasks	
		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		

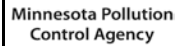
Subtasks		Knowledge		Personal Skills	
			30		
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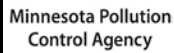
A. Communicate with clients, colleagues, and authorities





A.Contact local unit of government program with SSTS jurisdiction

[illegible]



B. Access resources to identify and reconc

[illegible]

-to-Know: Service Provider

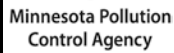
File conflicts and concerns

Describe how you must behave to complete the subtasks

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

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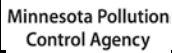
C. Properly delegate work between certified

Subtasks	List sequenced order of steps to complete the master task	Knowledge	Identify knowledge necessary to complete the subtasks		Attitudes
			MPCA Requirements	Learning Objectives	
1	Provide proper training, daily work review, and periodic work observation of noncertified		1		
2	Ensure DCI personally conducts tasks as specified in rule		2		
			3		
			4		
				Learning Objectives	
			1		
					Interpersonal Skills

What Do You Need to Know: Service Provider
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



D. Prepare to conduct a service visit

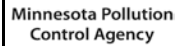
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-to-Know: Service Provider

Describe how you must behave to complete the subtasks

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

[illegible]



A. Using documentation, complete system description

[illegible]



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

[illegible]



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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	Knowledge	MPCA Requirements	Attitudes	
			Learning Objectives		
	i Record Number of Bedrooms			Interpersonal Skills	
	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				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				



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

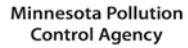
2. Record site details

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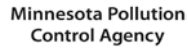
3. Complete holding tank description

[illegible]



4. Complete septic tank description

[illegible]



5. Complete flow equalization 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
	Complete Form 1-1. System Description: Section D. No System Documentation Available		MPCA Requirements		
	i Record Capacity in Gallons		Learning Objectives		
	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			Identify the skills necessary for interacting with other people in order to complete the subtasks	
	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				



6. Complete dosing pump tank description

[illegible]



7. Complete ATU description

[illegible]



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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
	Complete Form 1-1. System Description: Section D. No System Documentation Available		MPCA Requirements		
a	Section D. No System Documentation Available	Knowledge	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				



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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	Knowledge	Identify knowledge necessary to complete the subtasks	Attitudes	Describe how you must behave to complete the subtasks
			MPCA Requirements		
a	Complete Form 1-1. System Description: Section D. No System Documentation Available		Learning Objectives		
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			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 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				



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

10. Complete constructed wetland description

Skills	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 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							

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



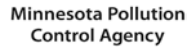
11. Complete disinfection unit description

[illegible]



12. Complete gravity distribution description

[illegible]



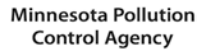
13. Complete pressurized drainfield description

[illegible]



14. Complete pressure mound distribution description

[illegible]



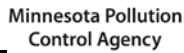
15. Complete drip distribution description

[illegible]



16. Sketch system

[illegible]



C. If system serves other establishments

[illegible]

-to-Know: Service Provider

t...

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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Control Agency

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

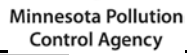
D. Complete system evaluation form (1-2) from CIDWT Manual

Subtasks	List sequenced order of steps to complete the master task	Knowledge	Identify knowledge necessary to complete the subtasks	Attitudes	Describe how you must behave to complete the subtasks
	1 Complete Form 1-2. System Evaluation: Part D. System Evaluation		MPCA Requirements		
	a Record Flow Estimation Method		1 7080.1200 subp.2		
	b If Using House Water Meter Reading,		2 7080.1550 subp.1		
	c Verify correct placement of meter		3 7080.1550 subp.2		
	d Calculate Estimated Gallons per Day = (Current Reading (Gallons) – Previous Reading (Gallons)) / Number of Days Between Readings		4 7080.1860		
	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 ??		Learning Objectives		
	g If Using Discharge Line Meter, Record Reading in Gallons per Day??		1 Define drainback		
	h If Using Estimate Based on Number of Occupants, Record Number of People??		2 Explain how drainback affects flow calculation		
	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			Interpersonal Skills	Identify the skills necessary for interacting with other people in order to complete the subtasks
	n Talk to users				Report to client if ?
	o Verify collection & comp are watertight				
	p Verify pump operating correctly				
	q Compare flow values along treatment train				



E. Conduct site assessment

[illegible]



F. Determine required service activities and

[illegible]

-to-Know: Service Provider

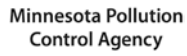
and frequencies from OP

Describe how you must behave to
complete the subtasks

[illegible]

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

[illegible]



G. Determine if any compliance management and further evaluate risks to develop or modify

[illegible]

Know-What-to-Know: Service Provider
 • Rent activities are overdue
 • Identify 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

[illegible]



H. Create a management agreement w

[illegible]

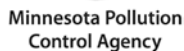
-to-Know: Service Provider
with customer

Describe how you must behave to complete the subtasks

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

[illegible]





V. Conduct service visit

[illegible]

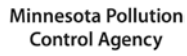
-to-Know: Service Provider

Describe how you must behave to complete the subtasks

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

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

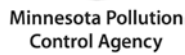
-to-Know: Service Provider
s structurally sound and

Describe how you must behave to complete the subtasks

[illegible]

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

[illegible]



2. Assess and certify maintenance hole structurally sound and safe

[illegible]

What to Know: Service Provider
 e risers and covers as

Describe how you must behave to complete the subtasks

[illegible]

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

[illegible]



3. Assess system operation based on user requirements

[illegible]

What to Know: Service Provider Use 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

[illegible]



5. Assess, operate, and maintain grease trap

ks	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	Complete Form 5.2 Operational Checklist: Septic, Trash & Processing Tanks	1	MPCA Requirements	
	a	Record Details of Current Operation	2	7080.1900	
	b	Deem Conditions at Tank as Acceptable or Unacceptable	3	7080.1500 subp.4(A)	
	c	Describe Tank	4	7080.1500 subp.4(C)	
	d	Deem Tank Access as Acceptable or Unacceptable	5	7080.1500 subp.5	
	e	Assess Tank Insulation	6	7080.1500 subp.6	
	f	Deem Alarm as Acceptable or Unacceptable	7	7080.1970 subp.A	
	g	Deem Current Tank Operating Conditions as Acceptable or Unacceptable	8	7080.1970 subp.B	
	i	Measure liquid level relative to outlet	9	7080.1970 subp.C(1)	
	ii	Measure maximum liquid level of tank	10	7080.1970 subp.C(2)	
	iii	Measure height at which alarm is activated as measured from invert of inlet	11	7080.1970 subp.C(3)	
	iv	Evaluate layers in tank	12	7080.1970 subp.C(4)	
	h	Record Future Tank Pumping Recommendation	13	7080.2000 subp.D	
	i	Deem Condition of Baffles as Acceptable or Unacceptable	14	7080.2000 subp.G	
	j	Evaluate Effluent Screen	15	7080.2000 subp.H	
	k	Clean Effluent Screen	16	7080.2000 subp.K	
	l	If Pumped, Deem Tank Structural Condition as Acceptable or Unacceptable	17	7080.2010 subp.1(A)	
	m	If Pumped, Record Details of Operation	18	7080.2010 subp.3(A)(2)	
	n	If Required for Monitoring, Collect Lab Samples	19	7080.2010 subp.A	
			20	7080.2010 subp.C	
			21	7080.2150 subp.3(B)	
			22	7080.2270 subp.10	
			23	7080.2270 subp.11	
			24	7080.2270 subp.8	
			25	7080.2270 subp.9	
			26	7080.2290 subp.B	
			27	7080.2290 subp.C	
			28	7080.2290 subp.D	
			29	7080.2290 subp.E	
			30	7080.2290 subp.F	
				7080.2450 subp.1	
				7080.2450 subp.2(A)	

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

6. Assess septic tank

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
				MPCA Requirements			Identify the skills necessary for interacting with other people in order to complete the subtasks
	1	Complete Form 5.2 Operational Checklist: Septic, Trash & Processing Tanks	1	7080.1900			
	a	Record Details of Current Operation	2	7080.1500 subp.4(A)			
	b	Deem Conditions at Tank as Acceptable or Unacceptable	3	7080.1500 subp.4(C)			
	c	Describe Tank	4	7080.1500 subp.5			
	d	Deem Tank Access as Acceptable or Unacceptable	5	7080.1500 subp.6			
	e	Assess Tank Insulation	6	7080.1970 subp.A			
	f	Deem Alarm as Acceptable or Unacceptable	7	7080.1970 subp.B			
	g	Deem Current Tank Operating Conditions as Acceptable or Unacceptable	8	7080.1970 subp.C(1)			
	i	Measure liquid level relative to outlet	9	7080.1970 subp.C(2)			
	ii	Measure maximum liquid level of tank	10	7080.1970 subp.C(3)			
	iii	Measure height at which alarm is activated as measured from invert of inlet	11	7080.1970 subp.C(4)			
	iv	Evaluate layers in tank	12	7080.2000 subp.D			
	h	Record Future Tank Pumping Recommendation	13	7080.2000 subp.G			
	i	Deem Condition of Baffles as Acceptable or Unacceptable	14	7080.2000 subp.H			
	j	Evaluate Effluent Screen	15	7080.2000 subp.K			
	k	Clean Effluent Screen	16	7080.2010 subp.1(A)			
	l	If Pumped, Deem Tank Structural Condition as Acceptable or Unacceptable	17	7080.2010 subp.3(A)(2)			
	m	If Pumped, Record Details of Operation	18	7080.2010 subp.A			
	n	If Required for Monitoring, Collect Lab Samples	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			
				pg 38			

Subtans

Knowledge

- | | |
|----|---------------------|
| 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 |

Interpersonal Skills

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

7. Assess pump tank

KS	List sequenced order of steps to complete the master task	Age	Identify knowledge necessary to complete the subtasks	Attitudes	Describe how you must behave to complete the subtasks
			MPCA Requirements		
	1 Complete Form 6.1 Operational Checklist: Pump Tank		1 7080.1900		
	a Record Details of Current Operation		2 7080.1500 subp.4(A)		
	b Deem Conditions at Tank as Acceptable or Unacceptable		3 7080.1500 subp.4(C)		
	c Describe Tank		4 7080.1500 subp.5		
	d Deem Tank Access as Acceptable or Unacceptable		5 7080.1500 subp.6		
	e Assess Tank Insulation		6 7080.1970 subp.A		
	f Deem Current Tank Operating Conditions as Acceptable or Unacceptable		7 7080.1970 subp.B		
	i Measure liquid level relative to outlet		8 7080.1970 subp.C(1)		
	ii Measure maximum liquid level of tank		9 7080.1970 subp.C(2)		
	iii Measure height at which alarm is activated as measured from top of maximum liquid level		10 7080.1970 subp.C(3)		
			11 7080.1970 subp.C(4)		
	g Deem Pump or Siphon as Acceptable or Unacceptable		12 7080.2000 subp.D		
	h Deem Discharge Assembly as Acceptable or Unacceptable		13 7080.2000 subp.G		
	i If Present, Deem Seal and Watertightness of Electrical Components as Acceptable or Unacceptable		14 7080.2000 subp.H		
	j If Pumped, Deem Tank Structural Condition as Acceptable / Unacceptable		15 7080.2000 subp.K		
	j Evaluate Solids Accumulation in Tank		16 7080.2010 subp.1(A)		
	k Record Future Tank Pumping Recommendation		17 7080.2010 subp.3(A)(2)		
	l If Pumped, Record Details of Operation		18 7080.2010 subp.A		
	m Evaluate Screen		19 7080.2010 subp.C		
	i Clean screen		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)		



Knowledge

Subtasks

Knowledge



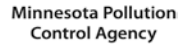
9. Assess timed-dosed pump/control system

[illegible]

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	Knowledge	Identify knowledge necessary to complete the subtasks	Attitudes	Describe how you must behave to complete the subtasks
1	Complete Form 8.1 Operational Checklist: Gravity Distribution	1	MPCA Requirements		
	a Record Details of Current Operation		2 7080.1500 subp.4(A)		
	b Record Method for Dosing to Field		3 7080.1500 subp.4(C)		
	c Record Method for Distribution in the Field		4 7080.1500 subp.5		
	d Deem Conditions at the Drainfield Site as Acceptable or Unacceptable		5 7080.1500 subp.6		
	e Deem Distribution Device as Acceptable or Unacceptable		6 7080.2050 subp.1		
	i Measure distal head		7 7080.2050 subp.3(B)(1)		
	f Deem Each Lateral as Acceptable or Unacceptable		8 7080.2050 subp.3(B)(2)		
	g Deem Inspection Ports as Acceptable or Unacceptable		9 7080.2050 subp.3(B)(3)		
	h Deem Switching Valves as Acceptable or Unacceptable		10 7080.2050 subp.3(B)(5)		
			11 7080.2050 subp.3(D)(1)		
			12 7080.2050 subp.3(D)(2)		
			13 7080.2050 subp.3(D)(3)		
			14 7080.2150 subp.3(J)		
			15 7080.2210 subp.4(B)		
			16 7080.2210 subp.4(E)		
			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	Interpersonal	Identify the skills necessary for interacting with other people in order to complete the subtasks



11. Assess pressure distribution

[illegible]

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 8.4a. Operational checklist: Bottomless Sand Filters &		MPCA Requirements			
a	Record Details of Current Operation	1	7080.1500 subp.4(A)			
b	Determine Type of System	2	7080.1500 subp.4(C)			
c	Deem Conditions at the Drainfield Site as Acceptable or Unacceptable	3	7080.1500 subp.5			
d	Deem Media Surface as Acceptable or Unacceptable	4	7080.1500 subp.6			
i	Complete manufacturer's recommended maintenance	5	7080.2050 subp.1			
e	Deem Pressure Distribution as Acceptable or Unacceptable	6	7080.2050 subp.2(A)			
i	Measure distal head	7	7080.2050 subp.2(B)			
ii	Clean laterals	8	7080.2050 subp.2(C)			
f	Deem Additional Requirements for Mounds as Acceptable or Unacceptable	9	7080.2050 subp.4(J)			
g	Deem Inspection Ports as Acceptable or Unacceptable	10	7080.2150 subp.3(J)			
h	If Required for Monitoring, Collect Lab Samples	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	Interpersonal Skills	Identify the skills necessary for interacting with other people in order to complete the subtasks	
		4	Understand the principles and O&M requirements of mound drainfields			

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	Knowledge	Identify knowledge necessary to complete the subtasks	Attitudes	Describe how you must behave to complete the subtasks
Subtasks	1 Complete Form 8.4b. Operational checklist: Bottomless peat filter	Knowledge	MPCA Requirements		
	a Record Details of Current Operation		1 7080.1500 subp.4(A)		
	b Deem Conditions at the Drainfield Site as		2 7080.1500 subp.4(C)		
	c Deem Media Surface as Acceptable or Unacceptable		3 7080.1500 subp.5		
	i Clean media		4 7080.1500 subp.6		
	ii Replace media		5 7080.2050 subp.1		
	iii Complete manufacturer's recommended maintenance		6 7080.2050 subp.2(A)		
	d Deem Pressure Distribution as Acceptable or Unacceptable		7 7080.2050 subp.2(B)		
	i Measure distal head		8 7080.2050 subp.2(C)		
	ii Clean laterals		9 7080.2050 subp.4(J)		
	e Evaluate Completion of Manufacturer's Required Maintenance		10 7080.2450 subp.1		
	f If Required for Monitoring, Collect Lab Samples				
			Learning Objectives	Interpersonal Skills	Identify the skills necessary for interacting with other people in order to complete the subtasks
			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		



14. Assess drip distribution

[illegible]

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

15. Assess aerobic treatment unit

KS	List sequenced order of steps to complete the master task	KS	Identify knowledge necessary to complete the subtasks	Attitudes	Describe how you must behave to complete the subtasks
	1 Complete Form 7.2. Operational checklist: Aerobic Treatment Unit	dge	MPCA Requirements		
	a Record Details of Current Operation		1 7080.1500 subp.4(A)		
	b Determine Type of Aerobic Treatment Unit		2 7080.1500 subp.4(C)		
	c Deem Conditions at the Aerobic Treatment Unit as Acceptable or Unacceptable		3 7080.1500 subp.5		
	d Deem Accessibility to Aerobic Treatment Unit as Acceptable or Unacceptable		4 7080.1500 subp.6		
	e Deem Venting / Air Supply as Acceptable or Unacceptable		5 7080.2050 subp.1		
	i Clean air filter/screen		6 7080.2050 subp.2(A)		
	ii Replace air filter/screen		7 7080.2050 subp.2(B)		
	f Deem Aeration Chamber as Acceptable or Unacceptable		8 7080.2050 subp.2(C)		
	i Measure DO in aeration chamber		9 7080.2450 subp.1		
	ii Measure pH in aeration chamber				
	iii Measure temperature in aeration chamber		Learning Objectives		
	iv Complete settleability test		1 Describe the components of an aerobic treatment unit		
	g Deem Media as Acceptable or Unacceptable		2 Understand the difference between suspended growth and attached growth treatment processes		
	i Wash media		3 Name the treatment process and stages occurring in a sequencing batch reactor		
	ii Replace media		4 Identify the different methods to introduce air into an aeration chamber		
	h Deem Clarification Chamber as Acceptable or Unacceptable		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		Identify the skills necessary for interacting with other people in order to complete the subtasks
	i Measure scum layer		6 Understand the effect of hydraulic loading on the clarifier and organic loading on the		
	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				

[illegible]

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

16. Assess media filter

	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
S	1 Complete Form 7.1. Operational checklist: Media Filter	ge	MPCA Requirements		
	a Record Details of Current Operation		1 7080.1500 subp.4(A)		
	b Determine Type of Media Filters		2 7080.1500 subp.4(C)		
	c Deem Conditions at media Filter as Acceptable or Unacceptable		3 7080.1500 subp.5		
	d Deem Cover as Acceptable or Unacceptable		4 7080.1500 subp.6		
	e Deem Venting / Air Supply as Acceptable or Unacceptable		5 7080.2050 subp.1		
	f Deem Media Surface as Acceptable or Unacceptable		6 7080.2050 subp.2(A)		
	i Complete manufacturer's suggested maintenance		7 7080.2050 subp.2(B)		
	g Deem Effluent Quality as Acceptable or Unacceptable		8 7080.2050 subp.2(C)		
	i Assess turbidity		9 7080.2050 subp.4(J)		
	ii Measure DO at outlet		10 7080.2450 subp.1		
	iii Measure pH at outlet				
	iv Measure temperature at outlet		Learning Objectives		
	h Deem Pressure Distribution as Acceptable or Unacceptable		1 List the types of and differences between the media used in media filters, and explain how media filters treat wastewater		
	i Measure distal head		2 Explain the relationship between effluent detention time and wastewater treatment efficiency in media filters		
	ii Clean laterals		3 Understand the difference between single pass and recirculating media filter treatment processes and treatment trains		
	i Deem Gravity Distribution as Acceptable or Unacceptable		4 Understand trickling filter treatment trains, and identify treatment processes		
	j Deem Filter Drainage Systems as Acceptable or Unacceptable		5 Explain the difference between media filters and trickling filters		Identify the skills necessary for interacting with other people in order to complete the subtasks
	k Deem Additional Tasks for Recirculating Filters as Acceptable or Unacceptable		6 Understand what distal pressure is and how it may indicate a need for servicing		
	i Clean recirculation device		7 Describe the methods used to clean distribution laterals in media filters		

[illegible]

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	Knowledge	Identify knowledge necessary to complete the subtasks	Attitudes	Describe how you must behave to complete the subtasks
1 a b c i ii iii d i e i ii iii f g h	Complete Form 7.5. Operational checklist: Disinfection Unit - Chlorine	MPCA Requirements	1 7080.1500 subp.4(A)		
	Record Details of Current Operation		2 7080.1500 subp.4(C)		
	Deem Operation of Chlorination System as		3 7080.1500 subp.5		
	Deem Tablet Chlorination as Acceptable or Unacceptable		4 7080.1500 subp.6		
	Add tablets		5 7080.2050 subp.1		
	Clean contact chamber and stack feeder		6 7080.2050 subp.2(A)		
	Measure chlorine residual		7 7080.2050 subp.2(B)		
	Deem Liquid Chlorinator as Acceptable or Unacceptable		8 7080.2050 subp.2(C)		
	Measure chlorine residual		9 7080.2450 subp.1		
	Deem Tablet Dechlorination as Acceptable or Unacceptable		Learning Objectives		
	Add tablets		1 Understand the methods of disinfection systems		
	Clean contact chamber and stack feeder				
	Measure chlorine residual				
	Deem Control Panel as Acceptable or Unacceptable				
	Evaluate Completion of Manufacturer's Required Maintenance				
	If Required for Monitoring, Collect Lab Samples			Interpersonal Skills	Identify the skills necessary for interacting with other people in order to complete the subtasks



19. Assess UV disinfection unit

[illegible]



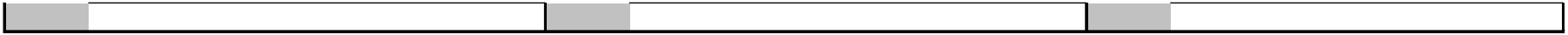
20. Assess privacy

[illegible]

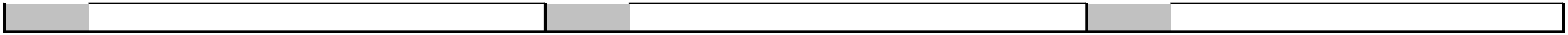


21. Assess, operate and maintain building sewer, collection system, and supply pipes

[illegible]



[illegible]



[illegible]

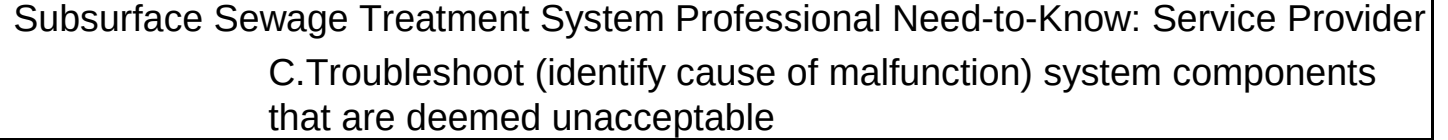


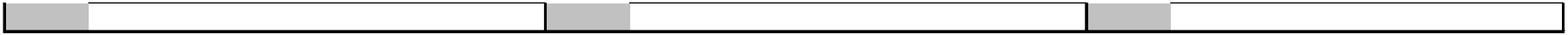
Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

B. Complete system monitoring to meet regulatory operational require

	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
Subtasks		Knowledge	MPCA Requirements	Attitudes	
	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

[illegible]

[illegible]



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	1	MPCA Requirements	Attitudes	
	a If surface water is not effectively managed/diverted away from the site and/or its components		1 7080.2450 subp.7		
	i Locate source of surface water		2 7080.2000 subp.D		
	ii Divert surface water away from system with diversion berms and swales		3 7080.2150 subp.3(J)		
	iii Divert run-on with gutters, drainage trenches, and/or berms				
	iv Refer homeowner to consult designer and/or installer, as necessary		Learning Objectives		
	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				

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

1. Troubleshoot holding tank operation

KS	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 Tank are Deemed Unacceptable,		MPCA Requirements		
	a If odor is found within 10 ft of perimeter of system		1 7080.1900		
	i Locate source of odor		2 7080.1500 subp.4(A)		
	ii If natural plumbing is source of odor, refer homeowner to plumber		3 7080.1500 subp.4(C)		
	iii If SSTS is source of odor,		4 7080.1500 subp.5		
	- Replace caps		5 7080.1500 subp.6		
	- Replace covers		6 7080.1970 subp.A		
	- Replace sealant		7 7080.1970 subp.B		
	! Seal tank		8 7080.1970 subp.C(1)		
	! Seal & Secure inspection pipe		9 7080.1970 subp.C(2)		
	! Seal electrical connections		10 7080.1970 subp.C(3)		
	- Assess system owner's use to identify atypical source		11 7080.1970 subp.C(4)		
	2 If Tank Access is Deemed Unacceptable		12 7080.2000 subp.D		
	a Repair/Replace Maintenance Hole Cover		13 7080.2000 subp.G		
	b Repair/Replace Extensions (Risers)		14 7080.2000 subp.H		
	c Repair/Replace Tank Insulation		15 7080.2000 subp.K		
	d Repair/Replace locks & bolts		16 7080.2010 subp.1(A)		
	e Replace sealant		17 7080.2010 subp.3(A)(2)		
	i Seal tank		18 7080.2010 subp.A		
	ii Seal & Secure inspection pipe		19 7080.2010 subp.C		
	f Assess Tank Settling		20 7080.2150 subp.3(B)		
	3 If Alarm is Deemed Unacceptable		21 7080.2270 subp.10		
	a Verify alarm is not on silent		22 7080.2270 subp.11		
	b Evaluate power supply		23 7080.2270 subp.8		
	c Repair/Replace Fuse		24 7080.2270 subp.9		
	d Clear float obstruction in tank		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		

[illegible]

f	Repair/Replace Float	Knowledge	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		
	Refer homeowner to consult installer, as necessary					
ii						
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					

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		Identify knowledge necessary to complete the subtasks		Describe how you must behave to complete the subtasks	
1	If Conditions at Tank are Deemed Unacceptable		MPCA Requirements	Attitudes		
a	If odor is found within 10 ft of perimeter of system	1	7080.1900			
i	Locate source of odor	2	7080.1500 subp.4(A)			
ii	If natural plumbing is source of odor, refer homeowner to plumber	3	7080.1500 subp.4(C)			
iii	If SSTS is source of odor,	4	7080.1500 subp.5			
-	Replace caps	5	7080.1500 subp.6			
-	Replace covers	6	7080.1970 subp.A			
-	Replace sealant	7	7080.1970 subp.B			
!	Seal tank	8	7080.1970 subp.C(1)			
!	Seal & Secure inspection pipe	9	7080.1970 subp.C(2)			
!	Seal electrical connections	10	7080.1970 subp.C(3)			
-	Assess system owner's use to identify atypical source	11	7080.1970 subp.C(4)			
2	If Tank Access is Deemed Unacceptable	12	7080.2000 subp.D			
a	Repair/Replace Maintenance Hole Cover	13	7080.2000 subp.G			
b	Repair/Replace Extensions (Risers)	14	7080.2000 subp.H			
c	Repair/Replace Tank Insulation	15	7080.2000 subp.K			
d	Repair/Replace locks & bolts	16	7080.2010 subp.1(A)			
e	Replace sealant	17	7080.2010 subp.3(A)(2)			
i	Seal tank	18	7080.2010 subp.A			
ii	Seal & Secure inspection pipe	19	7080.2010 subp.C			
f	Assess Tank Settling	20	7080.2150 subp.3(B)			
3	If Alarm is Deemed Unacceptable	21	7080.2270 subp.10			
a	Verify alarm is not on silent	22	7080.2270 subp.11			
b	Evaluate power supply	23	7080.2270 subp.8			
c	Repair/Replace Fuse	24	7080.2270 subp.9			
d	Clear float obstruction in tank	25	7080.2290 subp.B			
e	Adjust float	26	7080.2290 subp.C			
		27	7080.2290 subp.D		1	Identify the skills necessary for interacting with other people in order to complete the subtasks
		28	7080.2290 subp.E			Inform home owner of issues arising from unacceptable assessment before action is taken
		29	7080.2290 subp.F			
		30	7080.2450 subp.1			
			pg 71			

f	Repair/Replace Float	Knowledge	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		
	Refer homeowner to consult installer, as necessary					
ii						
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					

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	Age	Identify knowledge necessary to complete the subtasks	Attitudes	Describe how you must behave to complete the subtasks
			MPCA Requirements		
	1 If Conditions at Tank Are Deemed Unacceptable		1 7080.1900		
	a If odor is found within 10 ft of perimeter of system		2 7080.1500 subp.4(A)		
	i Locate source of odor		3 7080.1500 subp.4(C)		
	ii If natural plumbing is source of odor, refer homeowner to plumber		4 7080.1500 subp.5		
	iii If SSTS is source of odor,		5 7080.1500 subp.6		
	- Replace caps		6 7080.1970 subp.A		
	- Replace covers		7 7080.1970 subp.B		
	- Replace sealant		8 7080.1970 subp.C(1)		
	! Seal tank		9 7080.1970 subp.C(2)		
	! Seal & Secure inspection pipe		10 7080.1970 subp.C(3)		
	! Seal electrical connections		11 7080.1970 subp.C(4)		
	- Assess system owner's use to identify atypical source		12 7080.2000 subp.D		
	2 If Tank Access is Deemed Unacceptable		13 7080.2000 subp.G		
	a Repair/Replace Maintenance Hole Cover		14 7080.2000 subp.H		
	b Repair/Replace Extensions (Risers)		15 7080.2000 subp.K		
	c Repair/Replace Tank Insulation		16 7080.2010 subp.1(A)		
	d Repair/Replace locks & bolts		17 7080.2010 subp.3(A)(2)		
	e Replace sealant		18 7080.2010 subp.A		
	i Seal tank		19 7080.2010 subp.C		
	ii Seal & Secure inspection pipe		20 7080.2100 subp.2(A)		
	f Assess Tank Settling		21 7080.2100 subp.2(D)		
	3 If Current Tank Operating Conditions Are Deemed Unacceptable		22 7080.2100 subp.2(E)		
	a If low liquid levels,		23 7080.2100 subp.2(F)		
	b Assess watertightness		24 7080.2100 subp.3(A)		
	c Refer homeowner to consult installer, as necessary		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)		



5. Troubleshoot demand-dosed pump/control system operation

[illegible]

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

6. Troubleshoot timed-dosed pump/control system operation

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
1	If Controls Are Deemed Unacceptable		MPCA Requirements		
	a Verify meter disc is spinning		1 7080.1500 subp.4(A)		
	b Verify power at all breakers & fuses with		2 7080.1500 subp.4(C)		
	c volt meter		3 7080.1500 subp.5		
	d If breakers tripped, reset breaker		4 7080.1500 subp.6		
	e If fuses open, replace fuse		5 7080.2300 subp.E		
	f If relay tripped, reset relay and check if		6 7080.2450 subp.1		
	g pump current is within range of relay				
	h If current exceeds relay, replace or repair				
	i pump				
	j If current does not exceed relay, open lift				
	k station to verify pump operation				
	l Check for float operation				
	m Check for objects jamming impeller				
	n Check pump piping				
	o If relay not tripped, open lift station to verify				
	p pump operation				
	q If pump not operating, replace or repair				
	r pump				
	s If pump is operating, restore pump panel to				
	t auto				
	u Replace Control Panel				
	v Check gages				
	w If cycles per day unacceptable,				
	x Check hydraulic condition of drainfield				
	y Verify timer to set to meet design				
	z Adjust timer to meet actual use				
	aa Assess owner use			1	Identify the skills necessary for interacting with other people in order to complete the subtasks
	ab Assess inflow				1 Inform home owner of issues arising from unacceptable assessment before action is taken
	ac Investigate history of wet weather events				

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

7. Troubleshoot gravity distribution operation

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
	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.3(B)(1)		
	- Replace sealant		7 7080.2050 subp.3(B)(2)		
	! Seal tank		8 7080.2050 subp.3(B)(3)		
	! Seal & Secure inspection pipe		9 7080.2050 subp.3(B)(5)		
	! Seal electrical connections		10 7080.2050 subp.3(D)(1)		
	- Assess system owner's use to identify atypical source		11 7080.2050 subp.3(D)(2)		
	b If leaks above/around surface,		12 7080.2050 subp.3(D)(3)		
	i Assess system owner's use to identify actual loading rates		13 7080.2150 subp.3(J)		
	ii Refer homeowner to consult designer and/or installer		14 7080.2210 subp.4(B)		
	iii Divert surface with berm		15 7080.2210 subp.4(E)		
	iv Assess distribution operation		16 7080.2450 subp.1		
	c If vegetation inappropriate or excessive,				
	i Identify surfacing sewage		Learning Objectives		
	ii Refer homeowner to complete themselves				
	iii Assess freezing				
	2 If Distribution Device Deemed Unacceptable				
	a Assess watertightness				
	b Assess security of inspection ports				



8. Troubleshoot pressure distribution operation

Skills	List sequenced order of steps to complete the master task	Edge	Identify knowledge necessary to complete the subtasks	Attitudes	Describe how you must behave to complete the subtasks
	1 If Conditions at the Pressurized Drainfield 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.4(F)		
	! Seal tank	8	7080.2050 subp.4(J)		
	! Seal & Secure inspection pipe	9	7080.2050 subp.B(2)		
	! Seal electrical connections	10	7080.2050 subp.B(4)		
	- Assess system owner's use to identify atypical source	11	7080.2050 subp.B(8)		
	b If leaks above/around surface,	12	7080.2050 subp.D		
	i Assess system owner's use to identify actual loading rates	13	7080.2150 subp.3(J)		
	ii Refer homeowner to consult designer and/or installer	14	7080.2220 subp.1(D)		
	iii Divert surface with berm	15	7080.2450 subp.1		
	iv Assess distribution operation		Learning Objectives	1	Identify the skills necessary for interacting with other people in order to complete the subtasks
	c If vegetation inappropriate or excessive,				1 Inform home owner of issues arising from unacceptable assessment before action is taken
	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				

Subtas	a	4	a	b
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[illegible]

a

4

a

b

Knowledge

Interpersonal Skills

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

9. Troubleshoot at-grades & mounds operation

KS	List sequenced order of steps to complete the master task	Age	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				

[illegible]



Minnesota Pollution
Control Agency

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	dge	Identify knowledge necessary to complete the subtasks	Attitudes	Describe how you must behave to complete the subtasks
	1 If Conditions at the Drip Distribution Zone 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 7080.2150 subp.3(J)		
	! Seal electrical connections		10 7080.2450 subp.1		
	- Assess system owner's use to identify atypical source		Learning Objectives		
	b If leaks above/around surface,				Identify the skills necessary for interacting with other people in order to complete the subtasks
	i Assess system owner's use to identify actual loading rates				1 Inform home owner of issues arising from unacceptable assessment before action is taken
	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				



12. Troubleshoot aerobic treatment unit operation

[illegible]

S	e	Consult product manufacturer	je		
	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 frothing,			
	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			

Subtask		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		

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		
a	If odor at media filter is unacceptable,	1	7080.1500 subp.4(A)		
i	Assess ponding	2	7080.1500 subp.4(C)		
ii	Assess external ventilation	3	7080.1500 subp.5		
iii	Assess owner use	4	7080.1500 subp.6		
iv	Assess media cell	5	7080.2050 subp.1		
	Assess lid seal	6	7080.2050 subp.2(A)		
2	If Cover Is Deemed Unacceptable	7	7080.2050 subp.2(B)		
a	Repair/Replace cover	8	7080.2050 subp.2(C)		
b	Secure cover	9	7080.2050 subp.4(J)		
3	If Venting / Air Supply Is Deemed Unacceptable	10	7080.2450 subp.1		
a	Clean air filters/screen		Learning Objectives		
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				
c	If animal activity,				
					Identify the skills necessary for interacting with other people in order

Subtasks	i	Consult pest control professional	Knowledge		Practical Skills	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,				

[illegible]



Subtasks

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

Knowledge

MPCA Requirements

- ## Learning Objectives

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

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	dge	Identify knowledge necessary to complete the subtasks	Attitudes	Describe how you must behave to complete the subtasks
	1 If Power Supply Is Deemed Unacceptable		MPCA Requirements		
	a Refer homeowner to consult with electrician		1 7080.1500 subp.4(A)		
			2 7080.1500 subp.4(C)		
			3 7080.1500 subp.5		
	2 If UV Controls Are Deemed Unacceptable		4 7080.1500 subp.6		
	a Repair/Replace alarm		5 7080.2050 subp.1		
			6 7080.2050 subp.2(A)		
	3 If Contact Chamber, Lamp or Sleeve Conditions Are Deemed Unacceptable		7 7080.2050 subp.2(B)		
	a Repair/Replace contact chamber		8 7080.2050 subp.2(C)		
	b Replace lamp		9 7080.2450 subp.1		
	c Replace sleeve				
	4 If Influent Characteristics Are Deemed Unacceptable		Learning Objectives		
	a If turbidity unacceptable,				Identify the skills necessary for interacting with other people in order to complete the subtasks
	i Troubleshoot treatment component up treatment train				
	b If flow rate is too high,				1 Inform home owner of issues arising from unacceptable assessment before action is taken
	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 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				

[illegible]



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

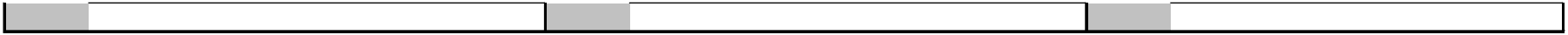
[illegible]



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



		pg 104	



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

[illegible]



3. Properly abandon system with no future intent for use

[illegible]



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

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

[illegible]

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

12. Adjust or repair at-grades & mounds

[illegible]



13. Adjust or repair bottomless peat filter and replace media.

[illegible]



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		A B C D E	MPCA Requirements			
		Learning Objectives				
					Interpersonal Skills	Identify the skills necessary for interacting with other people in order to complete the subtasks



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		A B C D E	MPCA Requirements		
		Learning Objectives			
					Interpersonal Skills

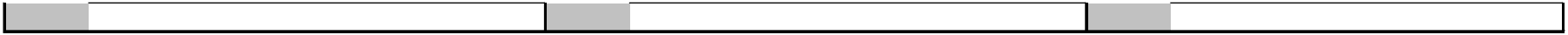
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Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

18. Adjust or repair chlorination disinfection unit and replace chlorine

[illegible]



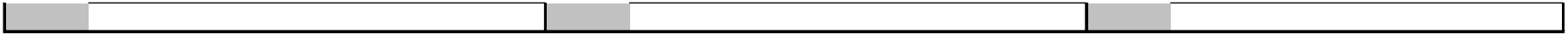
Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

19. Adjust or repair UV disinfection unit and replace bulbs

[illegible]

[illegible]

[illegible]



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

22. Adjust water table monitoring device

[illegible]

[illegible]



1. Close tank(s)

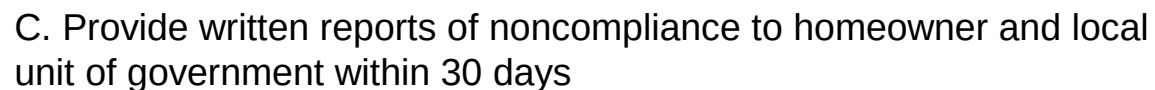
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B. Submit reports to permitting authority and system owner

[illegible]

[illegible]

