



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

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

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

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	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

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	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



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	Knowledge	Identify knowledge necessary to complete the subtasks	Attitudes	Describe how you must behave to complete the subtasks
	1		Pass Introduction to Onsite Systems Exam		1
2	Pass Service Provider Exam	2	7083.1020 Subp.2.B		
		3	7083.1040 Subp.1		
			7083.1040 Subp.3		
			Learning Objectives		



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

C. Apply for Certification

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
					Identify the skills necessary for interacting with other people in order 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		
		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		

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- 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

Interpersonal Skills



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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	Identify knowledge necessary to complete the subtasks	Describe how you must behave to complete the subtasks	
	Subtasks	1 Complete 12 hours (at least 6 Direct) of continuing education training related to SSTS every three years	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	Attitudes
		Learning Objectives 	Interpersonal Skills	



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

II. Obtain Service Provider Business License

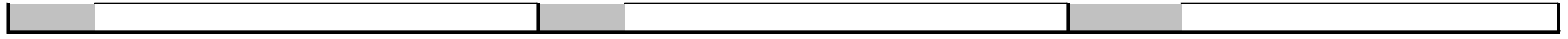
List sequenced order of steps to complete the master task		Identify knowledge necessary to complete the subtasks		Attitudes	Describe how you must behave to complete the subtasks
A Complete Application		MPCA Requirements			Attitudes
1	Complete License Application Form	1	7080.1670		
2	Submit Professional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





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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	Knowledge	Attitudes	Describe how you must behave to complete the subtasks
				<ol style="list-style-type: none"> 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 knowledgeable of various repair, replacement, and upgrade work Determine compliance and management expertise Establish reporting protocol for compliance reports
			Interpersonal Skills	<p>Identify the skills necessary for interacting with other people in order to complete the subtasks</p>



Subsurface Sewage Treatment System Professional Need

B. Access resources to identify and reconci

Subtasks	List sequenced order of steps to complete the master task	Knowledge	Identify knowledge necessary to complete the subtasks	Attitudes
	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	
				Interpersonal Skills



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
	1 Provide proper training, daily work review, and periodic work observation of noncertified		MPCA Requirements	
	2 Ensure DCI personally conducts tasks as specified in rule		1	
			2	
			3	
			4	
			Learning Objectives	
			1	
				Interpersonal Skills



Subsurface Sewage Treatment System Professional Need

D. Prepare to conduct a service visit

Subtasks	List sequenced order of steps to complete the master task	Identify knowledge necessary to complete the subtasks	Attitudes
	<ol style="list-style-type: none"> 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 	<p>MPCA Requirements</p> <ol style="list-style-type: none"> 1 2 3 4 <p>Learning Objectives</p> <ol style="list-style-type: none"> 1 	



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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	Attitudes	Describe how you must behave to complete the subtasks
				Interpersonal Skills
	1 Complete Form 1.1 System Description: Section D. No System Documentation Available	MPCA Requirements Learning Objectives		



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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		Interpersonal Skills
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				



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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	edge	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
a	Complete Form 1-1. System Description: Section D. No System Documentation Available				
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				
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				

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- xxi If Vegetation Present, Describe
- xxii Record Presence of Water Level Control
- xxiii If Water Level Control Present, Describe its Operation

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Interpersonal Skills



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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	Attitudes	Describe how you must behave to complete the subtasks
				Interpersonal Skills
a	Complete Form 1-1. System Description: Section D. No System Documentation Available	MPCA Requirements Learning Objectives	Attitudes	
i	Determine Type of Disinfection Unit			
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			



14. Complete pressure mound distribution description

Subtasks	List sequenced order of steps to complete the master task	Knowledge	Attitudes	Describe how you must behave to complete the subtasks
				Interpersonal Skills
	a Complete Form 1-1. System Description: Section D. No System Documentation Available			
	i Record Distribution Method			
	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			
	viii Record Presence of Clean Out Surface Access			
	ix Record Number of Beds			
	x Record Bed Dimensions in Ft			

MPCA Requirements
Learning Objectives

Attitudes

Interpersonal Skills

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



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



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	Identify knowledge necessary to complete the subtasks	Describe how you must behave to complete the subtasks
		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	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
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	Interpersonal Skill 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		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 4-1. Site Assessment		MPCA Requirements		
1	Record details of current operation	A	7080.2450 subp.7		
2	Deem surface water management as acceptable or unacceptable	B	7080.2000 subp.D		
3	Deem subsurface water management as acceptable or unacceptable	C	7080.2150 subp.3(J)		
			Insert component settling/erosion		
4	Deem system encroachment as acceptable or unacceptable		Learning Objectives		
5	Deem vegetation and soils as acceptable or unacceptable	A	Describe the influence of topography and landscape position with regard to onsite wastewater treatment system function		
6	If applicable, deem groundwater monitoring wells as acceptable or unacceptable	B	Describe the causes and effects of erosion around onsite components and in the drainfield		
a	Sample Groundwater, if required	C	Identify the proper grading and subsurface water management procedures for an onsite system		
8	If applicable, deem observation well/piezometer as acceptable or unacceptable	D	Explain the importance of keeping encroachments and sources of stormwater away from system components		
a	Record Depth to Water, if required	E	Describe the purpose of vegetation over the drainfield		
b	Sample Groundwater, if required	F	Explain the significance of dead vegetation, excessive vegetation, large trees, and roots in the drainfield		
9	Record additional comments	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		

Subtasks

Knowledge

Attitudes

Interpersonal Skill

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



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

**-to-Know: Service Provider
d 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 management and further evaluate risks to develop or modify

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



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



V. Conduct service visit

Subtasks	List sequenced order of steps to complete the master task	Knowledge	Identify knowledge necessary to complete the subtasks	Attitudes
	1 Identify each component as acceptable or unacceptable		MPCA Requirements	
	2 Assess, operate and maintain components per CIDWT operational checklists			
	3 Complete system monitoring to meet regulatory operational requirements according to certified laboratory standards		Learning Objectives	
	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			
				Interpersonal Skills



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
	1 2 3 4 5 6 		MPCA Requirements 7082.0700 4 B 1 7080.1500 4 B Learning Objectives 	



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	
	1		MPCA Requirements		
			7080.1500 4 A		
			7082.0700 4 B 1		
			Learning Objectives		
					Interpersonal Skills



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

4. Assess holding tank

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 Complete Form 5.1 Operational Checklist: Holding Tank		MPCA Requirements	Attitudes	
	a Record Details of Current Operation	1	7080.1900		
	b Deem Conditions at Tank as Acceptable or Unacceptable	2	7080.1500 subp.4(A)		
	c Describe Tank	3	7080.1500 subp.4(C)		
	d Deem Tank Access as Acceptable or Unacceptable	4	7080.1500 subp.5		
	e Assess Tank Insulation	5	7080.1500 subp.6		
	f Deem Alarm as Acceptable or Unacceptable	6	7080.1970 subp.A		
	g Deem Current Tank Operating Conditions As Acceptable or Unacceptable	7	7080.1970 subp.B		
	i Measure liquid level relative to inlet	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 invert of outlet	10	7080.1970 subp.C(3)		
	h If Pumped, Deem Tank Structural Condition as Acceptable / Unacceptable	11	7080.1970 subp.C(4)		
	i Record Future Holding Tank Pumping Recommendations	12	7080.2000 subp.D		
	j If Pumped, Record Details of Operation	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)		Identify the skills necessary for interacting with other people in order to complete the subtasks
		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		

Subtas

Knowlec

- 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

Interpersonal Skills



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

5. Assess, operate, and maintain grease trap

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

Subtas

Knowlec

- 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

Interpersonal Skills



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

6. Assess septic tank

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

Subtas

Knowlec

- 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

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



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

10. Assess gravity distribution

	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	1 Complete Form 8.1 Operational Checklist: Gravity Distribution	Knowledge	Attitudes	
	a Record Details of Current Operation			1 MPCA Requirements
	b Record Method for Dosing to Field			1 7080.1500 subp.4(A)
	c Record Method for Distribution in the Field			2 7080.1500 subp.4(C)
	d Deem Conditions at the Drainfield Site as Acceptable or Unacceptable			3 7080.1500 subp.5
	e Deem Distribution Device as Acceptable or Unacceptable			4 7080.1500 subp.6
	i Measure distal head			5 7080.2050 subp.1
	f Deem Each Lateral as Acceptable or Unacceptable			6 7080.2050 subp.3(B)(1)
	g Deem Inspection Ports as Acceptable or Unacceptable			7 7080.2050 subp.3(B)(2)
	h Deem Switching Valves as Acceptable or Unacceptable			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			
	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	



12. Assess at-grades & mounds

Subtasks	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	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			
Knowledge			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				
		Interpersonal			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

15. Assess aerobic treatment unit

	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
KS	1 Complete Form 7.2. Operational checklist: Aerobic Treatment Unit	dge	MPCA Requirements	Attitudes	
	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		
	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					
					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. Assess media filter

	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	
S	1	Complete Form 7.1. Operational checklist: Media Filter	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	Attitudes		
	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			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	
	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				
				Identify the skills necessary for interacting with other people in order to complete the subtasks		

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Subtask

- ii Adjust recirculation ratio
- iii Evaluate Completion of Manufacturer's Required Maintenance
- I If Required for Monitoring, Collect Lab Samples

Knowledge

- 8 Understand what recirculation ratio is and how it may indicate the need for service on a media filter

Interpersonal Skills



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

17. Assess constructed wetland

	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	1 Complete Form 7.3. Operational checklist: Constructed wetland	MPCA Requirements	Attitudes	
	a Record Details of Current Operation	1 7080.1500 subp.4(A)		
	b Describe Constructed Wetland	2 7080.1500 subp.4(C)		
	c Deem Conditions at the Constructed Wetland as Acceptable or Unacceptable	3 7080.1500 subp.5		
	d Deem Water Level Management as Acceptable or Unacceptable	4 7080.1500 subp.6		
	i Adjust water level	5 7080.2050 subp.1		
	e Deem Vegetation as Acceptable or Unacceptable	6 7080.2050 subp.2(A)		
	f Deem Effluent Quality as Acceptable or Unacceptable	7 7080.2050 subp.2(B)		
	i Measure turbidity	8 7080.2050 subp.2(C)		
	ii Measure DO in outlet	9 7080.2450 subp.1		
iii Measure pH in outlet	10 7080.2150 subp.3.J			
iv Measure temperature in outlet				
g Deem Additional Tasks for Subsurface Flow Wetlands as Acceptable or Unacceptable				
h Deem Inspection Ports as Acceptable or Unacceptable				
i If Required for Monitoring, Collect Lab Samples				



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

18. Assess chlorination disinfection unit

	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	1	Complete Form 7.5. Operational checklist: Disinfection Unit - Chlorine	Knowledge	Attitudes	
	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				
				Interpersonal Skills	

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

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

	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	1 Complete Form 7.6. Operational checklist: Disinfection Unit - UV Light	Knowledge	MPCA Requirements	Attitudes	
	a Record Details of Current Operation		1 7080.1500 subp.4(A)		
	b Deem Power Supply as Acceptable or Unacceptable		2 7080.1500 subp.4(C)		
	i Replace ballast		3 7080.1500 subp.5		
	c Deem UV Controls as Acceptable or Unacceptable		4 7080.1500 subp.6		
	i Read intensity		5 7080.2050 subp.1		
	d Deem Contact Chamber, Lamp and Sleeve Conditions as Acceptable or Unacceptable		6 7080.2050 subp.2(A)		
	i Clean/Flush contact chamber of solids		7 7080.2050 subp.2(B)		
	ii Clean protective sleeve		8 7080.2050 subp.2(C)		
	iii Replace protective sleeve		9 7080.2450 subp.1		
	iv Replace UV lamp				
	e Deem Influent Characteristics as Acceptable or Unacceptable		Learning Objectives		
	i Measure turbidity		1 Understand the methods of disinfection systems		
	Measure flow rate				
	f Deem Control Panel as Acceptable or Unacceptable			Interpersonal Sk	Identify the skills necessary for interacting with other people in order to complete the subtasks
g Deem Housing Unit as Acceptable or Unacceptable					
h Evaluate Completion of Manufacturer's Required Maintenance					
i If Required for Monitoring, Collect Lab Samples					

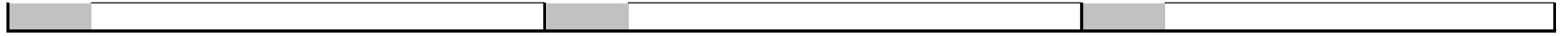


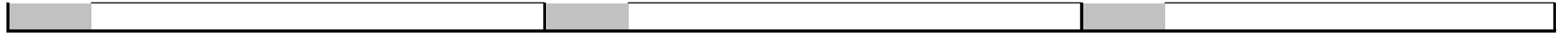
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Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

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

Subtasks	List sequenced order of steps to complete the master task	Knowledge	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 Assess inflow	MPCA Requirements 7080.1500 subp.4(A) 7080.1500 subp.4(C) 7080.1500 subp.5 7080.1500 subp.6							
	b Assess infiltration								
	c Assess exfiltration								
	Assess, operate, and maintain gravity piping								
	Assess, operate, and maintain pressure piping								



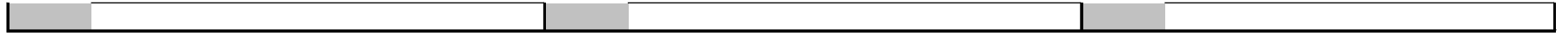




Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

B. Complete system monitoring to meet regulatory operational require

Subtasks	List sequenced order of steps to complete the master task	Knowledge	Attitudes	Identify knowledge necessary to complete the subtasks	Describe how you must behave to complete the subtasks
				Skills	
	1 Collect samples from appropriate location identified in operating permit or manufacturer recommendation	MPCA Requirements			
	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				
				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

A. Troubleshoot site assessment

	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
tasks	1 If surface water management is deemed unacceptable	dige	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				
	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

	List sequenced order of steps to complete the master task			Describe how you must behave to complete the subtasks
KS	1 If Conditions at Tank are Deemed Unacceptable,	Knowledge	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	
			26 7080.2290 subp.C	
			27 7080.2290 subp.D	
			28 7080.2290 subp.E	
	29 7080.2290 subp.F			
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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		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		
		28	7080.2290 subp.E		
		29	7080.2290 subp.F		
		30	7080.2450 subp.1		
					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	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		
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					



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		
		28	7080.2290 subp.E		
		29	7080.2290 subp.F		
		30	7080.2450 subp.1		
			pg 71		
					1 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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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	
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				



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

4. Troubleshoot pump 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
KS	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 7080.2100 subp.2(A)		
	3 If Current Tank Operating Conditions Are Deemed Unacceptable		21 7080.2100 subp.2(D)		
	a If low liquid levels,		22 7080.2100 subp.2(E)		
	b Assess watertightness		23 7080.2100 subp.2(F)		
	c Refer homeowner to consult installer, as necessary		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)			

Subtasks	d	If high liquid levels,	31	7080.2150 subp.3(B)	Interpersonal Skills		
	e	Adjust alarm ?	32	7080.2210 subp.1(C)			
	f	Adjust pumping schedule	33	7080.2230 subp.1(D)			
	g	Assess watertightness	34	7080.2260 subp.1(C)			
	h	Assess homeowner use	35	7080.2270 subp.1(C)			
	i	Assess plumbing leak inside house	36	7080.2270 subp.10			
	4	If Pump or Siphon are Deemed Unacceptable	37	7080.2270 subp.11			
	a	Verify Proper Location of Pump	38	7080.2270 subp.8			
	b	Replace Pump Block	39	7080.2270 subp.9			
	c	Repair/Replace pull chain/rope	40	7080.2300 subp.1(C)			
	5	If Discharge Assembly is Deemed Unacceptable	41	7080.2450 subp.1			
	a	Add weep hole	42	7080.2450 subp.2(A)			
	b	If weep hole plugged, clear plug	43	7080.2450 subp.2(B)			
	c	Clean Inline Screen	44	7080.2450 subp.3(A)			
	d	Repair/Replace Inline Screen	45	7080.2450 subp.3(B)			
	6	If Seal and Watertightness of Electrical Components are Deemed Unacceptable	46	7080.2450 subp.3(C)			
	a	Seal Component Connections	47	7080.2450 subp.3(D)			
	b	Refer homeowner to consult electrician, as necessary	48	7080.2450 subp.5			
	7	If Tank Structural Condition Is Deemed Unacceptable				1	Identify the skills necessary for interacting with other people in order to complete the subtasks
	a	Add venting					Inform home owner of issues arising from unacceptable assessment before action is taken
	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					

Knowledge

Learning Objectives



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

5. Troubleshoot demand-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 7080.2450 subp.1		
f	If relay tripped, reset relay and check if				
	pump current is within range of relay		Learning Objectives		
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				Identify the skills necessary for
	pump operation				interacting with other people in order
m	If pump not operating, replace or repair				to complete the subtasks
	pump				1 Inform home owner of issues arising
n	If pump is operating, restore pump panel to				from unacceptable assessment
	auto				before action is taken
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				



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

6. Troubleshoot timed-dosed pump/control system operation

	List sequenced order of steps to complete the master task			Describe how you must behave to complete the subtasks
KS	1 If Controls Are Deemed Unacceptable	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	
	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 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				
				1 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

7. Troubleshoot gravity distribution 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
	<p>1 If Conditions at the Drainfield Site Are Deemed Unacceptable</p> <p>a If odor is found within 10 ft of perimeter of system</p> <p>i Locate source of odor</p> <p>ii If natural plumbing is source of odor, refer homeowner to plumber</p> <p>iii If SSTS is source of odor,</p> <ul style="list-style-type: none"> - Replace caps - Replace covers - Replace sealant ! Seal tank ! Seal & Secure inspection pipe ! Seal electrical connections - Assess system owner's use to identify atypical source <p>b If leaks above/around surface,</p> <p>i Assess system owner's use to identify actual loading rates</p> <p>ii Refer homeowner to consult designer and/or installer</p> <p>iii Divert surface with berm</p> <p>iv Assess distribution operation</p> <p>c If vegetation inappropriate or excessive,</p> <p>i Identify surfacing sewage</p> <p>ii Refer homeowner to complete themselves</p> <p>iii Assess freezing</p> <p>2 If Distribution Device Deemed Unacceptable</p> <p>a Assess watertightness</p> <p>b Assess security of inspection ports</p>		<p>MPCA Requirements</p> <p>1 7080.1500 subp.4(A)</p> <p>2 7080.1500 subp.4(C)</p> <p>3 7080.1500 subp.5</p> <p>4 7080.1500 subp.6</p> <p>5 7080.2050 subp.1</p> <p>6 7080.2050 subp.3(B)(1)</p> <p>7 7080.2050 subp.3(B)(2)</p> <p>8 7080.2050 subp.3(B)(3)</p> <p>9 7080.2050 subp.3(B)(5)</p> <p>10 7080.2050 subp.3(D)(1)</p> <p>11 7080.2050 subp.3(D)(2)</p> <p>12 7080.2050 subp.3(D)(3)</p> <p>13 7080.2150 subp.3(J)</p> <p>14 7080.2210 subp.4(B)</p> <p>15 7080.2210 subp.4(E)</p> <p>16 7080.2450 subp.1</p> <p>Learning Objectives</p>		



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

8. Troubleshoot pressure distribution 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
KS	1 If Conditions at the Pressurized Drainfield Are Deemed Unacceptable	MPCA Requirements	Attitudes
	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		
	c If vegetation inappropriate or excessive,	Learning Objectives	1
	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

Unacceptable

a Adjust valve operation

4 If Orifices Are Deemed Unacceptable

a Replace pipe

b Replace orifice shield

Knowlec

Interpersonal Skills



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

9. Troubleshoot at-grades & mounds 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
KS	1 If Conditions at the Drainfield Site Are Deemed Unacceptable	MPCA Requirements	Attitudes	
	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				



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	Identify knowledge necessary to complete the subtasks	Attitudes	Describe how you must behave to complete the subtasks
	<p>1 If Conditions at the Drainfield Site Are Deemed Unacceptable</p> <p>a If odor at media filter is unacceptable,</p> <p>i Assess ponding</p> <p>ii Assess external ventilation</p> <p>iii Assess owner use</p> <p>2 If Media Surface Is Deemed Unacceptable</p> <p>a If ponding,</p> <p>i Clean media</p> <p>ii Replace media</p> <p>iii Consult product manufacturer</p> <p>b If settling,</p> <p>i Replace/Add media</p> <p>c If animal activity,</p> <p>i Consult pest control professional</p> <p>3 If Pressure Distribution Is Deemed Unacceptable</p> <p>a Replace pipe</p> <p>b Replace orifice shield</p>	<p>MPCA Requirements</p> <p>1 7080.1500 subp.4(A)</p> <p>2 7080.1500 subp.4(C)</p> <p>3 7080.1500 subp.5</p> <p>4 7080.1500 subp.6</p> <p>5 7080.2050 subp.1</p> <p>6 7080.2050 subp.2(A)</p> <p>7 7080.2050 subp.2(B)</p> <p>8 7080.2050 subp.2(C)</p> <p>9 7080.2050 subp.4(J)</p> <p>10 7080.2450 subp.1</p> <p>Learning Objectives</p>		<p>Identify the skills necessary for interacting with other people in order to complete the subtasks</p> <p>1 Inform home owner of issues arising from unacceptable assessment before action is taken</p>



Minnesota Pollution Control Agency

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

11. Troubleshoot drip distribution 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
KS	1 If Conditions at the Drip Distribution Zone Are Deemed Unacceptable	edge	MPCA Requirements	Attitudes	
	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,				
	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					
					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

Subtasks

- 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

Knowledge

Interpersonal Skills



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	Identify knowledge necessary to complete the subtasks		Describe how you must behave to complete the subtasks	
1	If Conditions at the Aerobic Treatment Unit Are Deemed Unacceptable	MPCA Requirements	Attitudes		
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			
-	Determine is arline has settled	5 7080.2050 subp.1			
-	Replace caps	6 7080.2050 subp.2(A)			
-	Replace covers	7 7080.2050 subp.2(B)			
-	Replace sealant	8 7080.2050 subp.2(C)			
!	Seal tank	9 7080.2450 subp.1			
!	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	Learning Objectives			Identify the skills necessary for interacting with other people in order to complete the subtasks
a	Repair/Replace Lid				1 Inform home owner of issues arising from unacceptable assessment before action is taken
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				

S	e	Consult product manufacturer	ge		
	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		Describe how you must behave to complete the subtasks
	1 If Conditions at Media Filter Are Deemed Unacceptable		MPCA Requirements	Attitudes	
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		ial Skills			
	5	If Effluent Quality Is Deemed Unacceptable				1	to complete the subtasks 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,							



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

14. Troubleshoot constructed wetland 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
KS	1 If Conditions at the Constructed Wetland Are Deemed Unacceptable	MPCA Requirements	Attitudes
	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	
	b If border material unacceptable,	5 7080.2050 subp.1	
	i Repair/Replace border material	6 7080.2050 subp.2(A)	
	c If water/soil entering wetland,	7 7080.2050 subp.2(B)	
	i Repair/Replace liner	8 7080.2050 subp.2(C)	
	ii Refer homeowner to consult pest control professional	9 7080.2150 subp.3(J)	
		10 7080.2450 subp.1	
	2 If Water Level Management Is Deemed Unacceptable	Learning Objectives	
	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,			
		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

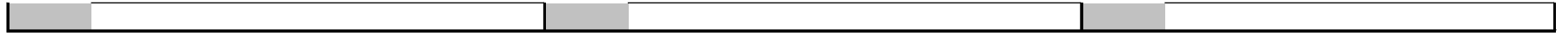
	List sequenced order of steps to complete the master task		Identify knowledge necessary to complete the subtasks		Describe how you must behave to complete the subtasks	
KS	1 If Power Supply Is Deemed Unacceptable a Refer homeowner to consult with electrician	dge	MPCA Requirements 1 7080.1500 subp.4(A) 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.2(A) 7 7080.2050 subp.2(B) 8 7080.2050 subp.2(C) 9 7080.2450 subp.1	Attitudes		
	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 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					
						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

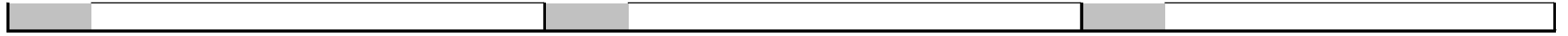


Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

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

Subtasks	List sequenced order of steps to complete the master task	Knowledge	Attitudes	Describe how you must behave to complete the subtasks
	<ol style="list-style-type: none"> 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 			<p>MPCA Requirements</p> <ul style="list-style-type: none"> a 7080.1500 subp.4(A) b 7080.1500 subp.4(C) c 7080.1500 subp.5 d 7080.1500 subp.6 <p>Learning Objectives</p>
Interpersonal Skills	<p>Identify the skills necessary for interacting with other people in order to complete the subtasks</p>	<ol style="list-style-type: none"> 1 Inform home owner of issues arising from unacceptable assessment before action is taken 		







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

	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	A	MPCA Requirements A 7080.1670 B 7083.0700 C D E	Attitudes
		Learning Objectives 	Interpersonal Skills

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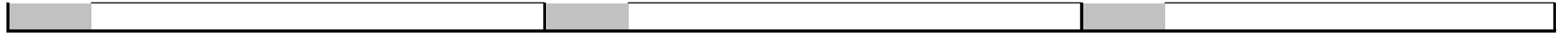


Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

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

Subtasks	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	MPCA Requirements	
	A 7080.1500 Subp. 6	
	B 7082.0100 Subp. 3 Item O	
	C	
	D	
	E	
	Learning Objectives	
		Identify the skills necessary for interacting with other people in order to complete the subtasks

		In	

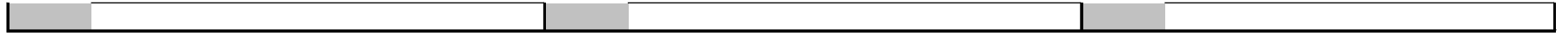




Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

16. Adjust or repair media filter and replace media

Subtasks	List sequenced order of steps to complete the master task	Identify knowledge necessary to complete the subtasks	Describe how you must behave to complete the subtasks
	A		MPCA Requirements
		A	
		B	
		C	
		D	
		E	
		Learning Objectives	
			Identify the skills necessary for interacting with other people in order to complete the subtasks

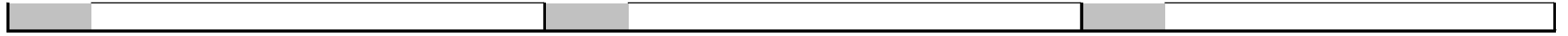


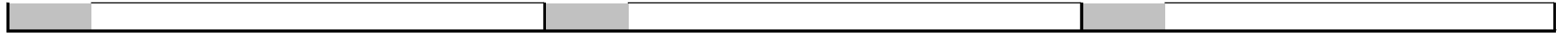


Subsurface Sewage Treatment System Professional Need-to-Know: Service Provider

18. Adjust or repair chlorination disinfection unit and replace chlorine

Subtasks	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		MPCA Requirements A B C D E
		Learning Objectives	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

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

Subtasks	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	A Update Form 1-1. System Description	MPCA Requirements A 7080.1500 subp.6
		Learning Objectives	
			Identify the skills necessary for interacting with other people in order to complete the subtasks

