

1.1 **Pollution Control Agency**1.2 **Adopted Permanent Rules Making Minor Corrections to Miscellaneous**
1.3 **Water-Related Rules**1.4 **7041.1200 MANAGEMENT PRACTICES AND LIMITATIONS.**

1.5 [For text of subps 1 and 2, see M.R.]

1.6 Subp. 3. **Suitable soil conditions, slopes, and separation distances.** The suitable
1.7 soil conditions in item A and the suitable slopes and separation distances in item B must
1.8 be met when bulk sewage sludge is applied to agricultural land application sites. These
1.9 conditions and limitations must also be met when bulk sewage sludge is applied to
1.10 nonagricultural sites such as reclamation, forest, or public contact sites unless approved by
1.11 the commissioner under the requirements of part 7041.0800, subpart 5. Bulk sewage sludge
1.12 must not be applied to agricultural land, forest, a public contact site, or a reclamation site
1.13 that is 33 feet or less from surface waters or wetlands unless specified otherwise in a permit.

1.14 [For text of item A, see M.R.]

1.15 B. Suitable slopes and separation distances must be as described in this item.
1.16 If applied through irrigation equipment, aerosol drift shall not be in contact with the
1.17 feature specified.

1.18 **BULK SEWAGE SLUDGE APPLIED TO THE LAND**
1.19 **SUITABLE SLOPES AND SEPARATION DISTANCES**

1.20	1.21	1.22	1.23	1.24
	Criteria	Surface Applied	Incorporation within 48 hrs.	Injection
1.22	Depth to bedrock	3 ¹ ft.	3 ¹ ft.	3 ¹ ft.
1.23	Depth to seasonal high 1.24 water table ² or drain 1.25 tile ³	3 ¹ ft.	3 ¹ ft.	3 ¹ ft.
1.26	Allowable slopes	0% to 6%	0% to 12%	0% to 12%
1.27	Distance to wells			

2.1	Private supply	200 ft.	200 ft.	200 ft.
2.2	Public supply	1000 ft.	1000 ft.	1000 ft.
2.3	Irrigation	50 ft.	25 ft.	25 ft.
2.4	Distance to residences ⁴	200 ft.	200 ft.	100 ft.
2.5	Distance to residential			
2.6	development ⁴	600 ft.	600 ft.	300 ft.
2.7	Distance to public			
2.8	contact site ⁴	600 ft.	600 ft.	300 ft.
2.9	Down gradient ⁵ lakes, rivers, streams, type 3, 4, and 5			
2.10	wetlands, intermittent streams ⁶ , or tile inlets connected			
2.11	to these surface waters, and sinkholes			
2.12	Slope 0% to 6%	200 ft.	50 ft.	50 ft.
2.13	Slope >6 to 12%	N/A	100 ft.	100 ft.
2.14	Grassed Waterways ⁷			
2.15	Slope 0% to 6%	100 ft.	33 ft.	33 ft.
2.16	Slope 6% to 12%	N/A	33 ft.	33 ft.

2.17 ¹The depth is calculated from the zone of sewage sludge application and the
 2.18 separation distance for highly permeable soils is 5 feet.

2.19 ²For the purpose of this item, a perched water condition shall not be considered a
 2.20 seasonal high water table.

2.21 ³The depth to subsurface drainage tiles shall be considered the depth to the seasonal
 2.22 high water table for sites with tile drainage systems that are designed according to or
 2.23 equivalent to Natural Resources Conservation Service engineering standards and criteria.

2.24 ⁴Separation distances may be reduced with written permission from all persons
 2.25 responsible for residential developments and places of recreation and all persons
 2.26 inhabiting within the otherwise protected distance.

2.27 ⁵If downgradient surface water does not receive runoff because the site is bermed,
 2.28 separation distances can be reduced to 33 feet.

3.1 ⁶For the purpose of this item, intermittent stream means a drainage channel with
3.2 definable banks that provides for runoff flow to any of the surface waters listed in this
3.3 item during snow melt or rainfall events.

3.4 ⁷Separation distances are from the centerline of grassed waterways. For grassed
3.5 waterways which are wider than these separation distances, application is allowed to the
3.6 edge of the grass strip. Grassed waterways are natural or constructed, typically broad and
3.7 shallow, and seeded to grass as protection against erosion.

3.8 [For text of subps 4 to 9, see M.R.]

3.9 **7041.1300 OPERATIONAL STANDARDS; PATHOGEN REDUCTION.**

3.10 [For text of subp 1, see M.R.]

3.11 Subp. 2. **Pathogens in sewage sludge; Class A.** To be classified Class A with
3.12 respect to pathogen reduction, the requirements in items A and B must be met.

3.13 [For text of items A to F, see M.R.]

3.14 G. Class A, Alternative 5. Sewage sludge shall be treated in one of the
3.15 processes to further reduce pathogens in subitems (1) to (7).

3.16 [For text of subitem (1), see M.R.]

3.17 (2) Heat drying. Sewage sludge is dried by direct or indirect contact with
3.18 hot gases to reduce the moisture content of the sewage sludge to 10 percent or lower.
3.19 Either the temperature of the sewage sludge particles exceeds 80 degrees Celsius or the
3.20 wet bulb temperature of the gas in contact with the sewage sludge as the sewage sludge
3.21 leaves the dryer exceeds 80 degrees Celsius.

3.22 [For text of subitems (3) to (7), see M.R.]

3.23 [For text of item H, see M.R.]

3.24 [For text of subp 3, see M.R.]

4.1 **7041.1800 PROVISIONS FOR SEWAGE SLUDGE FROM SEPTIC TANKS.**

4.2 [For text of subps 1 to 3, see M.R.]

4.3 Subp. 4. **Monitoring, record keeping, and reporting.** The permittee must obtain
4.4 and keep on record for five years, the information required to be in compliance with this
4.5 chapter including:

4.6 A. the following certification statement for all septage applied to the land:

4.7 "I certify, under penalty of law, that the information that will be used to determine
4.8 compliance with the pathogen and vector attraction reduction requirements in subpart 3,
4.9 item A, B, or C [insert either subpart 3, item A, B, or C] the management practices in
4.10 part 7041.1200, and the site restrictions in part 7041.1300, subpart 3, item D, has been
4.11 prepared under my direction and supervision according to the system designed to ensure
4.12 that qualified personnel properly gather and evaluate the information used to determine
4.13 that the pathogen and vector attraction reduction requirements have been met. I am aware
4.14 that there are significant penalties for false certification including the possibility of fine
4.15 and imprisonment.";

4.16 [For text of items B to J, see M.R.]

4.17 **7041.3400 ANALYSIS OF SOILS.**

4.18 [For text of subps 1 and 2, see M.R.]

4.19 Subp. 3. **Seasonal high water table.** When the necessary information for
4.20 determining the depth to and type of seasonal water table is not available from the
4.21 Natural Resources Conservation Service, the information may be obtained from either the
4.22 document in item A or the procedure identified in item B.

4.23 A. Determination of the depth of soil having mottles with a chroma of two or
4.24 less as discussed in Keys to Soil Taxonomy, (2010 and as subsequently amended), issued
4.25 by the United States Department of Agriculture, Natural Resources Conservation Service.

5.1 The document is incorporated by reference, is subject to frequent change, and is available
5.2 at http://soils.usda.gov/technical/classification/tax_keys/.

5.3 B. Measurement of water levels at monthly intervals over the course of one year
5.4 in water table monitoring devices. The highest water level measurement obtained is
5.5 acceptable as the seasonal high water table.

5.6 **7053.0405 REQUIREMENTS FOR AQUACULTURE FACILITIES.**

5.7 Subpart 1. **Definitions.** For purposes of this part, the terms in items A to G have
5.8 the meanings given them.

5.9 [For text of items A to E, see M.R.]

5.10 F. "Fish food" means materials including processed feeds, grains and seeds,
5.11 plants, plant wastes, meat, and dead fish or other dead animal parts, but not including
5.12 living aquatic animals, for the purposes of sustaining growth, repairing vital processes, or
5.13 furnishing energy for aquatic animals present in the facility.

5.14 G. "Warm and cool water aquatic animals" means all other aquatic animals not
5.15 included in the Salmonidae family of fish.

5.16 [For text of subp 2, see M.R.]

5.17 Subp. 3. **Treatment technology discharge requirements.**

5.18 [For text of items A and B, see M.R.]

5.19 [For text of subp 4, see M.R.]

5.20 Subp. 5. [See repealer.]

5.21 [For text of subp 6, see M.R.]

5.22 **7076.0140 NOTICE OF FINANCIAL ASSISTANCE AVAILABILITY.**

5.23 Subpart 1. **Notice.** The commissioner will provide notice that proposals for project
5.24 grants and loans will be accepted whenever the commissioner determines that funds are

6.1 available to award the financial assistance. Notice will be provided through the agency's
6.2 Web site, through the state's electronic financial portal, or by publication in the State
6.3 Register. The notice will contain the requirements necessary for the proposal and a deadline
6.4 for proposal submittal, which must be no less than 60 days from the date of notification.

6.5 [For text of subps 2 and 3, see M.R.]

6.6 **7080.2050 DISTRIBUTION OF EFFLUENT.**

6.7 [For text of subps 1 and 2, see M.R.]

6.8 Subp. 3. **Gravity distribution.**

6.9 [For text of items A to C, see M.R.]

6.10 D. Distribution boxes must meet the standards in subitems (1) to (6).

6.11 [For text of subitems (1) to (5), see M.R.]

6.12 (6) When sewage tank effluent is delivered by pump, a baffle wall must be
6.13 installed in the distribution box or the pump discharge must be directed against a wall,
6.14 baffle, side of the box on which there is no outlet, or directed against a deflection wall,
6.15 baffle, or other energy dissipater. The baffle must be secured to the box and extend at
6.16 least one inch above the crown of the inlet pipe. The discharge rate into the distribution
6.17 box must not result in surfacing of sewage from the box. Pressure must not build up in
6.18 the box during pump discharge.

6.19 [For text of item E, see M.R.]

6.20 [For text of subp 4, see M.R.]

6.21 **7080.2150 FINAL TREATMENT AND DISPERSAL.**

6.22 [For text of subps 1 and 2, see M.R.]

6.23 Subp. 3. **Other technical requirements for systems.** Items A to M are required for
6.24 specific designs as determined in parts 7080.2200 to 7080.2400.

7.1 [For text of items A to D, see M.R.]

7.2 E. The system's absorption area and mound absorption ratio must be sized
 7.3 according to Table IX or IXa.

7.4 TABLE IX
 7.5 LOADING RATES FOR DETERMINING BOTTOM ABSORPTION AREA AND
 7.6 ABSORPTION RATIOS USING DETAILED SOIL DESCRIPTIONS *

			Treatment Level C	Treatment Level C	Treatment Level A, A-2, B, B-2	Treatment Level A, A-2, B, B-2
			Absorption area loading rate (gpd/ft ²)	Mound absorption ratio	Absorption area loading rate (gpd/ft ²)	Mound absorption ratio***
7.13	USDA soil	Soil structure				
7.14	texture	and grade				
7.15	Sand, coarse	Single grain,	**	1.0	**	1.0
7.16	sand, loamy	granular, blocky,				
7.17	sand, loamy	or prismatic				
7.18	coarse sand,	structure; weak				
7.19	fine sand, very	grade				
7.20	fine sand, loamy					
7.21	fine sand, loamy					
7.22	very fine sand,					
7.23	35 to 50% rock					
7.24	fragments					
7.25	Sand, coarse	Single grain,	1.2	1.0	1.6	1.0
7.26	sand, loamy	granular, blocky,				
7.27	sand, loamy	or prismatic				
7.28	coarse sand,	structure; weak				
7.29	<35% rock	grade				
7.30	fragments					
7.31	Fine sand, very	Single grain,	0.6	2.0	1.0	1.6
7.32	fine sand, loamy	granular, blocky,				
7.33	fine sand, loamy	or prismatic				
7.34	very fine sand,	structure; weak				
7.35	<35% rock	grade				
7.36	fragments					

8.1	Sandy loam,	Granular,	0.78	1.5	1.0	1.6
8.2	coarse sandy	blocky, or				
8.3	loam, fine sandy	prismatic				
8.4	loam, very fine	structure; weak				
8.5	sandy loam	to strong grade				
8.6	Sandy loam,	Platy with weak	0.68	1.8	0.87	1.8
8.7	coarse sandy	grade or massive				
8.8	loam, fine sandy					
8.9	loam, very fine					
8.10	sandy loam					
8.11	Loam	Granular,	0.6	2.0	0.78	2.1
8.12		blocky, or				
8.13		prismatic				
8.14		structure; weak				
8.15		to strong grade				
8.16	Loam	Platy with weak	0.52	2.3	0.68	2.4
8.17		grade or massive				
8.18	Silt loam, silt	Granular,	0.5	2.4	0.78	2.1
8.19		blocky, or				
8.20		prismatic				
8.21		structure; weak				
8.22		to strong grade				
8.23	Silt loam, silt	Platy with weak	0.42	2.9	0.65	2.5
8.24		grade or massive				
8.25	Clay loam,	Granular,	0.45	2.6	0.6	2.7
8.26	sandy clay loam,	blocky, or				
8.27	silty clay loam	prismatic				
8.28		structure;				
8.29		moderate to				
8.30		strong grade				
8.31	Clay, sandy clay,	-	**	**	**	**
8.32	silty clay					

8.33 * Proposed absorption areas must meet item L and must have very friable and friable
8.34 consistence or loose noncemented sands.

9.1 ** Conduct percolation test and size under Table IXa. May need to be designed under
 9.2 part 7080.2300.

9.3 *** Assume a hydraulic loading rate to the sand at 1.6 gpd/ft².

9.4 TABLE IXa

9.5 LOADING RATES FOR DETERMINING BOTTOM ABSORPTION AREA AND
 9.6 ABSORPTION RATIOS USING PERCOLATION TESTS

9.7 Percolation rate 9.8 (MPI)	9.9 Treatment level 9.10 C absorption 9.11 area loading rate (gpd/ft ²)	9.12 Treatment 9.13 level C mound 9.14 absorption ratio	9.15 Treatment levels 9.16 A, A-2, B, and 9.17 B-2 absorption 9.18 area loading rate (gpd/ft ²)	9.19 Treatment levels 9.20 A, A-2, B, and 9.21 B-2 mound 9.22 absorption ratio
9.12 <0.1	-	1.0	-	1.0
9.13 0.1 to 5	1.2	1.0	1.6	1.0
9.14 0.1 to 5 (fine 9.15 sand and loamy 9.16 fine sand)	0.6	2.0	1.0	1.6
9.17 6 to 15	0.78	1.5	1.0	1.6
9.18 16 to 30	0.6	2.0	0.78	2.0
9.19 31 to 45	0.5	2.4	0.78	2.0
9.20 46 to 60	0.45	2.6	0.6	2.6
9.21 61 to 120	-	5.0	0.3	5.3
9.22 >120	-	-	-	-

9.23 [For text of items F to M, see M.R.]

9.24 [For text of subp 4, see M.R.]

9.25 **7080.2450 MAINTENANCE.**

9.26 [For text of subps 1 to 5, see M.R.]

9.27 Subp. 6. **Septage disposal.** Septage or any waste mixed with septage must be
 9.28 disposed of in accordance with state, federal, and local requirements for septage and other

10.1 wastes. If septage is disposed of into a sewage or septage treatment facility, a written
10.2 agreement must be provided between the accepting facility and the maintenance business.

10.3 [For text of subps 7 and 8, see M.R.]

10.4 **7081.0020 DEFINITIONS.**

10.5 [For text of subp 1, see M.R.]

10.6 Subp. 2. [See repealer.]

10.7 [For text of subps 3 to 5, see M.R.]

10.8 Subp. 6. **Other establishment.** "Other establishment" means any public or private
10.9 structure other than a dwelling that generates sewage that discharges to an SSTS.

10.10 [For text of subps 7 and 8, see M.R.]

10.11 **7081.0150 NECESSITY OF SOIL AND SITE EVALUATIONS.**

10.12 Soil and site evaluations must be conducted for MSTs design. The evaluations must
10.13 be conducted according to parts 7081.0160 to 7081.0200. Evaluations must identify and
10.14 delineate an initial and replacement soil treatment and dispersal area with appropriate
10.15 system site boundaries.

10.16 **7081.0270 FINAL TREATMENT AND DISPERSAL.**

10.17 [For text of subps 1 to 4, see M.R.]

10.18 Subp. 5. **Soil absorption area sizing.**

10.19 A. Effluent loading rates to the soil must be determined in:

10.20 (1) part 7080.2150, subpart 3, item E, Table IX or IXa; or

10.21 (2) part 7080.2400, if allowed by the local unit of government.

11.1 B. If the absorption area receives septic tank or treatment level C effluent as
11.2 described in part 7083.4030, the absorption area shall be increased by 50 percent of the
11.3 amount derived in item A, subitem (1), and zoned for dosing and resting.

11.4 [For text of subps 6 to 11, see M.R.]

11.5 **7081.0280 CONSTRUCTION REQUIREMENTS.**

11.6 [For text of item A, see M.R.]

11.7 B. The advanced designer must observe critical periods of system construction.
11.8 The designer shall prepare a report of observed construction activities and submit the
11.9 report to the local unit of government prior to final inspection.

11.10 **7082.0040 REGULATORY ADMINISTRATION RESPONSIBILITY.**

11.11 [For text of subps 1 to 3, see M.R.]

11.12 Subp. 4. **Required fiscal and physical capacity for local programs.** All local
11.13 governments that administer SSTS programs must have:

11.14 A. adequate personnel to properly conduct SSTS technical and administrative
11.15 functions. All local governments that administer SSTS programs must have:

11.16 (1) at least one certified inspector as described in part 7083.1020, subpart
11.17 1, item C, who is employed by the local unit of government or a contracted licensed
11.18 SSTS inspection business. Multiple local units of government are allowed to contract for
11.19 services with the same certified inspector; and

11.20 [For text of subitem (2), see M.R.]

11.21 [For text of item B, see M.R.]

11.22 [For text of subp 5, see M.R.]

11.23 **7083.1060 CONTINUING EDUCATION.**

11.24 Subpart 1. **Renewal requirements.**

12.1 [For text of item A, see M.R.]

12.2 B. An individual with a maintainer certification must complete 12 hours of
12.3 continuing education related in general to SSTS or nine hours of continuing education
12.4 specifically related to SSTS maintenance or land application of septage every three years.

12.5 [For text of items C to E, see M.R.]

12.6 [For text of subp 2, see M.R.]

12.7 **REPEALER.** Minnesota Rules, parts 7053.0405, subpart 5; and 7081.0020, subpart
12.8 2, are repealed.